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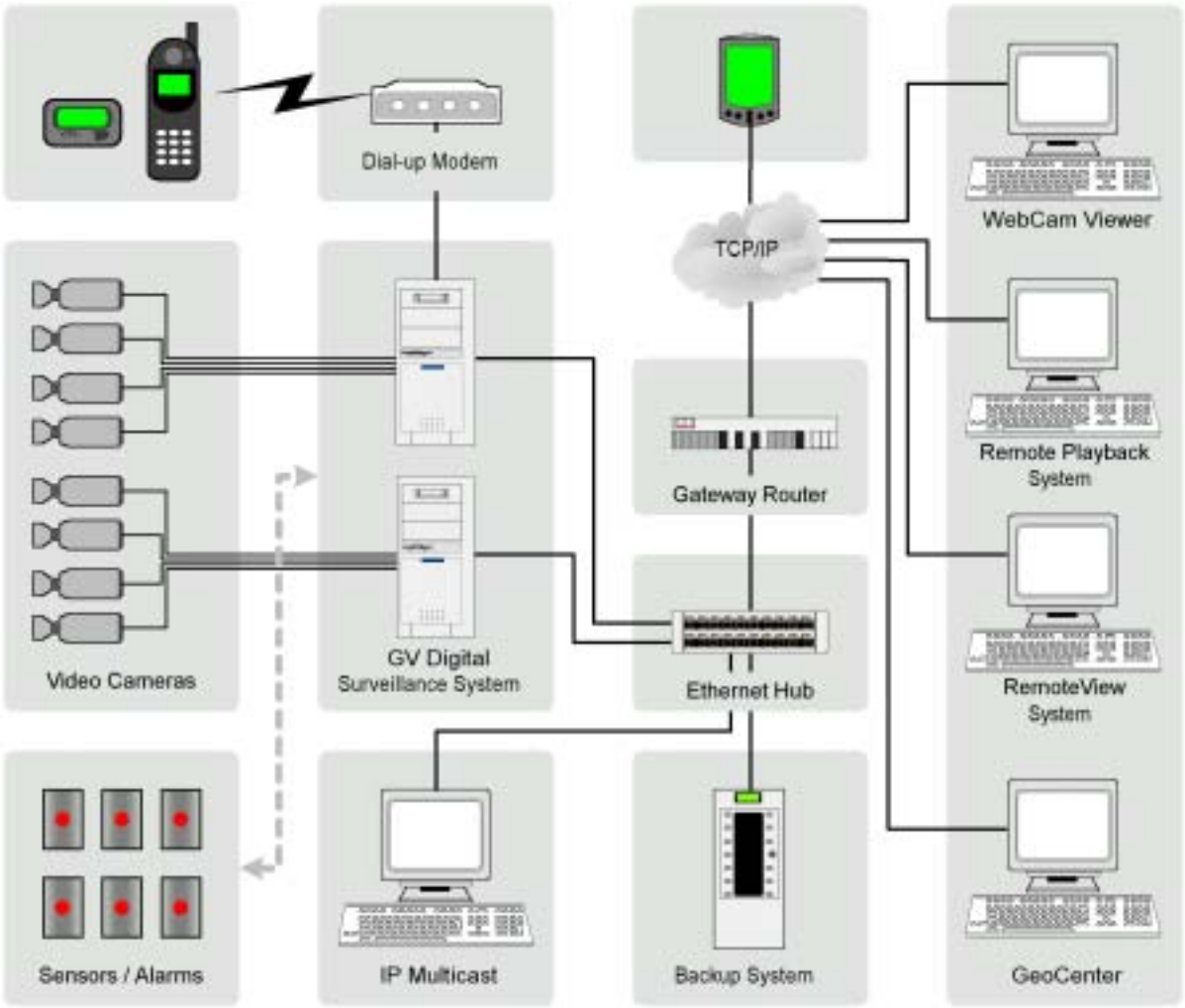
Introduction

The GV Digital Surveillance System is an advanced, total system solution that provides continuous or scheduled monitoring and recording of video surveillance cameras. The system is based on standard PC platform utilizing the latest digital video compression technologies.

The GV System as a whole is consisting of two major components: The video surveillance system and the remote monitoring system.

Video Surveillance System: Consists the GV-Series video capture card and the Main System Application. This system is responsible for the monitoring and recording of the video event from the cameras.

Remote Monitoring System: For viewing video surveillance system's video event from a remote workstation through LAN or Internet.



Product Specification

	Video Channel	Video Device	Recording Rate (NTSC / PAL)	Compression Format	Audio Channel	Real Time Display Card
GV-100	1,	USB Camera	30 / 30	Wavelet / MPEG4	N/A	N/A
GV-150	2, 4	USB Grabber	40 / 32	Wavelet / MPEG4	N/A	N/A
GV-250	2, 4, 6, 8, 10, 12, 14, 16	Video Card	20 / 16	Wavelet / MPEG4	N/A	N/A
GV-600	4, 6, 8, 10, 12, 14, 16	Video Card	30 / 25	Wavelet / MPEG4	1	Yes
GV-650	4, 8, 12, 16	Video Card	60 / 50	Wavelet / MPEG4	2	Yes
GV-750	6, 9	Video Card	90 / 75	Wavelet / MPEG4	3	Yes
GV-800	4, 8, 12, 16	Video Card	120 / 100	Wavelet / MPEG4	4	Yes

Note:

1. The Real Time Display Card is not compatible with VIA chipset-based motherboards.

System Requirement

	GV-100	GV-150	GV-250	GV-600	GV-650	GV-750	GV-800
OS	Windows 98SE / ME / 2000 / XP						
CPU	PentiumIII 500 (minimum)			PentiumIII 800 (Minimum)			
Memory	128 MB (minimum)			256 MB (Minimum)			
Hard Disk	10 GB (min)	20 GB (min)	40 GB (min)	40 GB (min)	80 GB (min)	80 GB (min)	80 GB (min)
VGA	NVIDIA GeForce II MX200 32 MB (minimum)						

Note:

1. To use 640 x 480 recording feature Pentium 4 grade CPU is required.
2. Currently GV650/750/800 card are not compatible with VIA series chipset motherboard.

Video Resolution

	640x480	640x480SW	640x240	320x240	280x212	240x180	240x176	160x120
GV-100	Driver	Driver	Driver	Driver	Driver	Driver	Driver	Driver
GV-150	-	-	-	Yes	-	-	-	-
GV-250	Yes	Yes	Yes	Yes	-	-	-	-
GV-600	Yes	Yes	Yes	Yes	-	-	-	-
GV-650	Yes	Yes	Yes	Yes	-	-	-	-
GV-750	Yes	Yes	Yes	Yes	-	-	-	-
GV-800	Yes	Yes	Yes	Yes	-	-	-	-

Note:

1. The video resolution for GV-100 will be depending on the resolution of your USB camera.

Chapter 1

Hardware Installation

The Hardware components included in your system may vary depending on the model or optional features you purchased. This chapter will describe all available hardware components of the GV-System and its installation procedures.

1.1 Video Capture Device Installation

1.1.1 GV-100 Installation

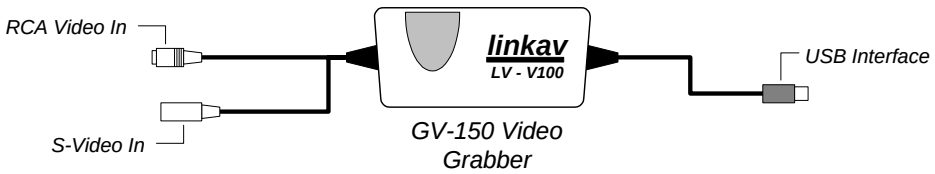
The GV-100 support only one port and is the most basic model in the GV-Series. It does not include any hardware components, but instead uses an USB webcam as its video capture device. Technically speaking, just about any USB webcam supported by the Windows operating system will work with the GV-100.

1. Plug in the USB camera into the USB port on your PC.
2. Windows will automatically detect the device. Now select the disk of USB camera to install the drive.

1.1.2 GV-150 Installation

The GV-150 supports either 2 or 4 ports depending on the number of ports you purchased. It uses an USB video grabber as the video capture device. One video grabber will support one camera, therefore a 2 ports system will use two grabbers and a 4 ports system will use four grabbers.

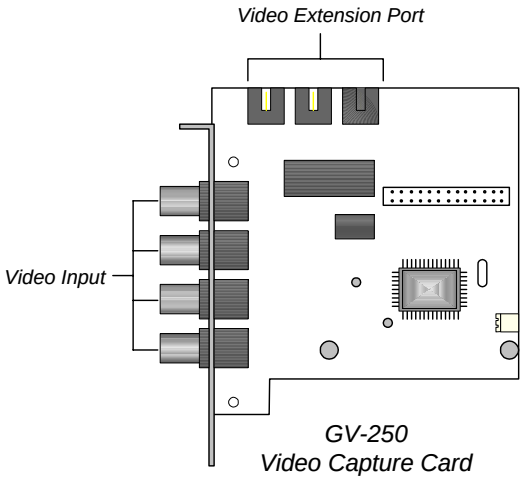
1. Plug in the USB adapter (Grabber) into the USB port on your PC.
2. Windows will automatically detect the device. Now select the driver path in the CD directory **\Driver\GV150** to install the driver.



1.1.3 Install GV-250 Hardware

The GV-250 uses a PCI interface video capture card that supports from 2 to 16 ports. The standard GV-250 will support either 2 or 4 ports. If you are installing a 6~16 ports system then you are require to connect video extension card to the system.

1. Power-off the PC.
2. Insert PCI card (GV-250) into PCI slot.
3. Turn on the PC power. Windows will automatically detect the existing (GV-250) card.
4. Now select the driver path in the CD directory **\Driver\GV250** to install the driver.

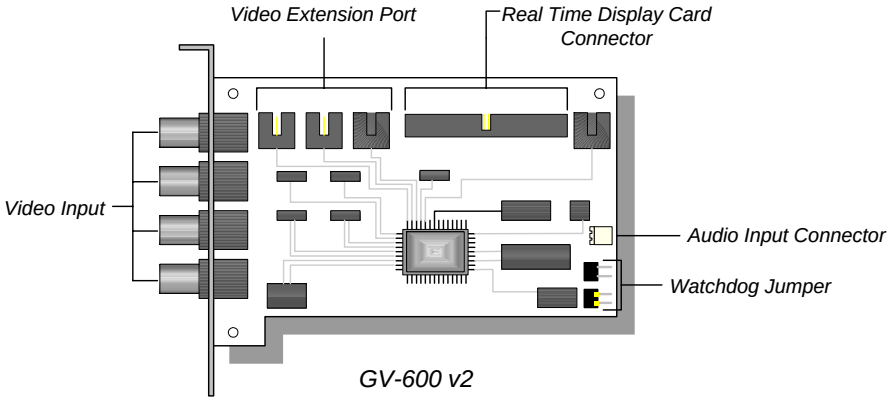


GV-250
Video Capture Card

1.1.4 Install GV-600 Hardware

The GV-600 uses a PCI interfaced card and is one of the models that support Real Time Display card and Audio Recording card. The GV-600 will support from 4 to 16 ports.

1. Power-off the PC.
2. Insert PCI card into PCI slots.
3. Turn on PC power. Windows will automatically detect the existing cards.
4. Now select the driver path in the CD directory **\Driver\GV600, 650, 700, 750, 800** to install the driver.

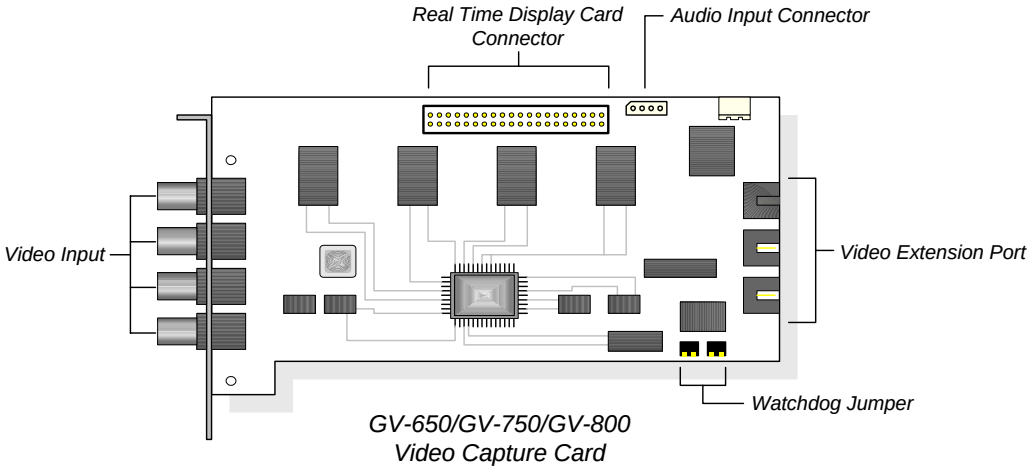


GV-600 v2

1.1.5 Install GV-650 / GV-750 / GV-800 Hardware

The GV-650, GV-750, and GV-800 are identical in card layout; the only difference is in the performance. All three models support the optional Real Time Display card and audio recording card. The standard model starts from 4 ports with optional expansion to 8, 12, and 16 ports.

1. Power-off the PC.
2. Insert PCI card into PCI slots.
3. Turn on PC power. Windows will automatically detect the existing cards.
4. Now select the driver path in the CD directory **\Driver\GV600, 650, 700, 750, 800** to install the driver.

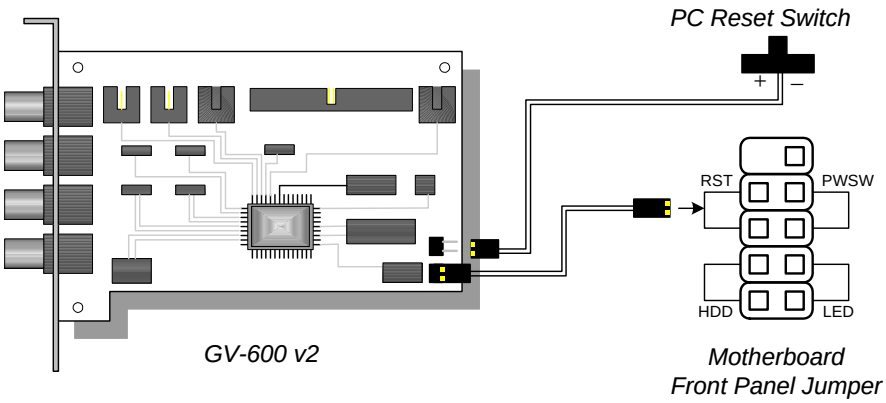


GV-650/GV-750/GV-800 Video Capture Card

1.2 Watchdog Installation for GV-600 / GV-650 / GV-750 / GV-800

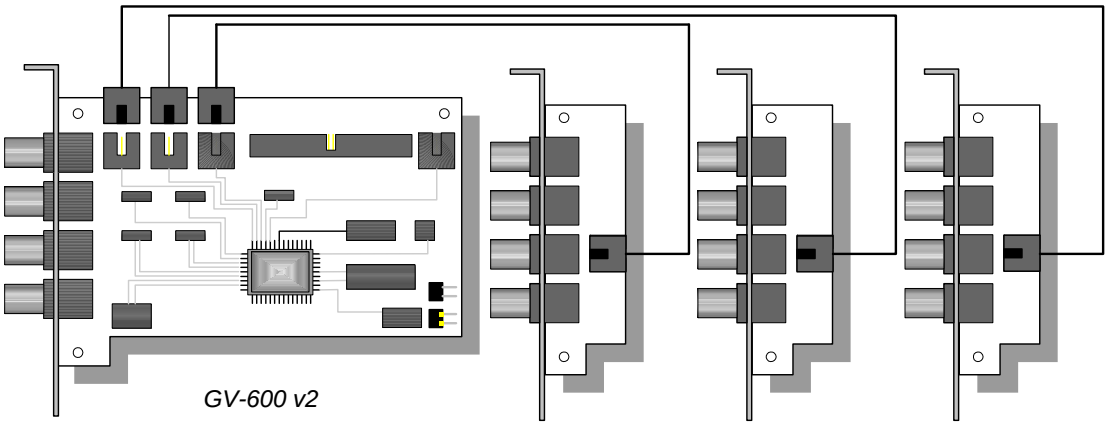
The Watchdog is a mechanism that is used to determine whether another mechanism is alive or not. In other words, if for some reason a system is down or "hang up", watchdog will automatically reboot the PC. The watchdog will restart the computer automatically if it did not receive any response from the system for more than 5 minutes.

The GV-Series video capture card has two units of reset button pin located in the lower right corner area. One set should be connected to the motherboard's reset jumper and the other to the PC's reset switch (please see illustration below). Your motherboards' RST pin position might be different from the illustration below. Please refer to your motherboard user's manual for the actual position.



1.3 Video Extension Card Installation

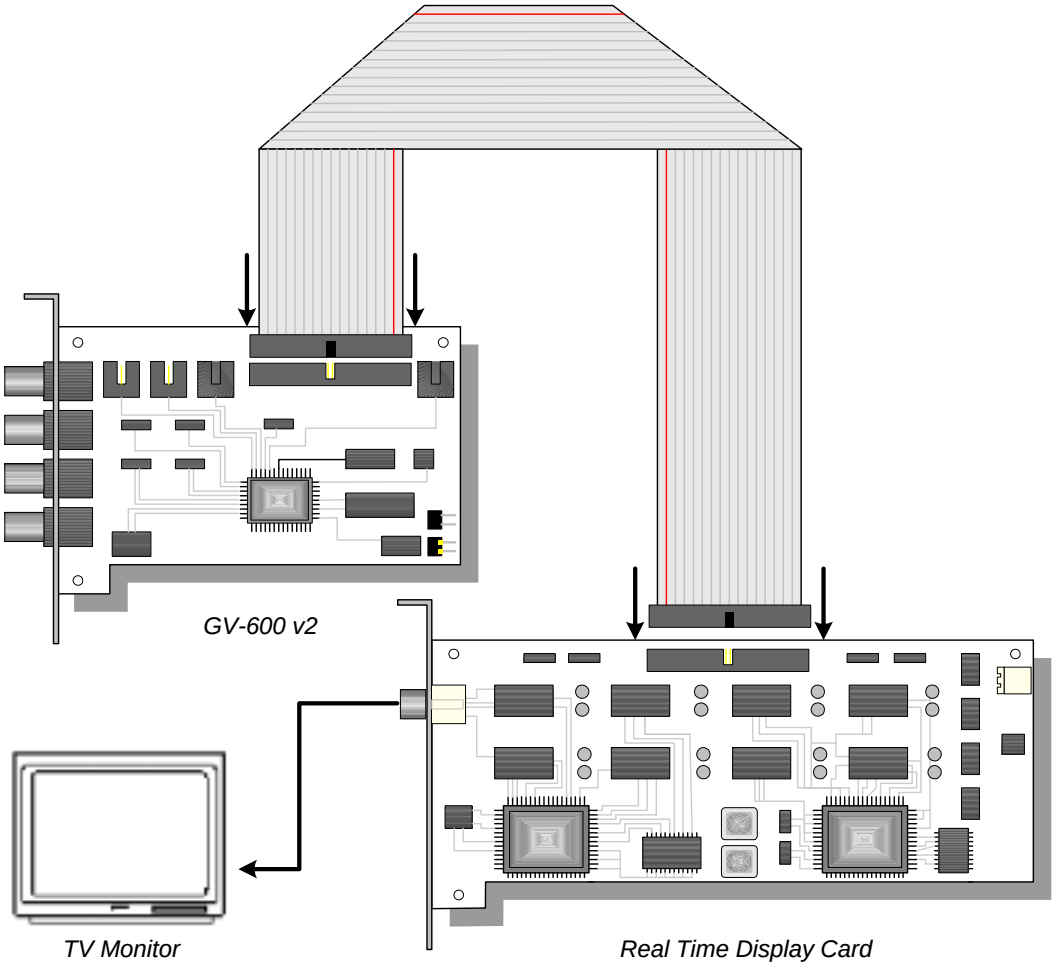
The GV-System comes standard in 4 video input channels with option to expand to 8, 12, or 16 channels. If you are installing an 8, 12, or 16 channels system then you will need to add video extension cards to the video capture card. Each capture card can be connected up to 3 video extension cards and each extension card will provide an additional 4 channels. The video extension card's output cord should be connected to the captured card's video extension port located in the upper left corner area as illustrated below. For model GV650, GV750, and GV800 users, the video extension ports are located in the right hand side area of your capture card.



1.4 Real Time Display Card Installation

The Real Time Display card is capable of feeding 480 fps to 16 video channels with each channel running at 30 fps. Video can also be displayed to a TV monitor by using the TV-out connector. The card is designed to work conjunctionally with your GV series video capture card; therefore, a direct connection between both cards is required. The current model that supports Real Time Display cards are GV600, GV650, GV750, and GV800.

1. Insert the Real Time Display card into the PCI slot next to the GV-Series video capture card.
2. Use the supplied ribbon cable, connect one end of the ribbon cable to the GV capture card and the other end to the Real-time Display card as illustrated in the following picture.
3. Now select the driver path in the CD directory \Driver\GVDSP to install the driver.

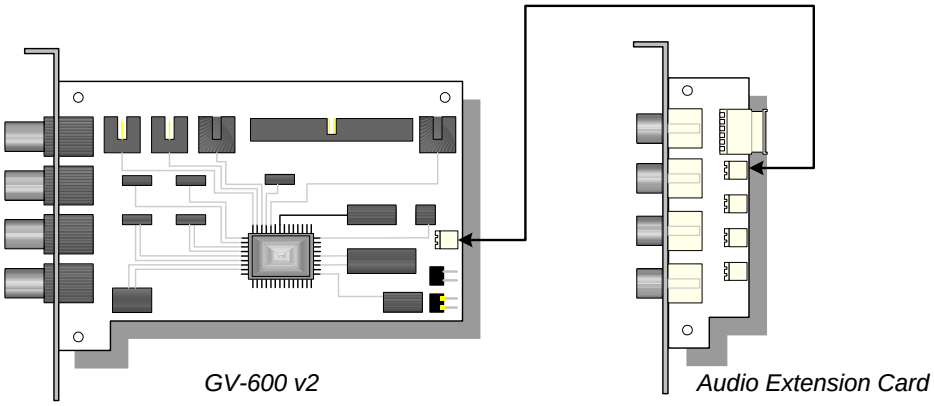


Note:

1. The Real-Time Display card is not compatible with VIA chipset motherboards.
2. The VGA card requirement for Real-Time Display card must be GeForce 2 or above.

1.5 Audio Extension Card Installation

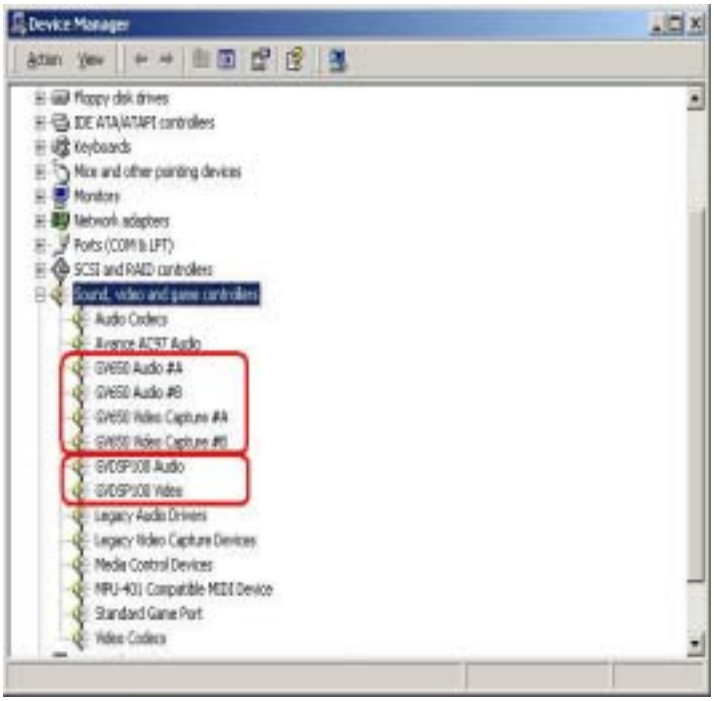
The Audio Extension Card adds audio recording capability to your GV-System. Currently the models that support audio recording function are GV-600, GV-650, GV-750, and GV-800, which support 1, 2, 3, and 4 recording channels respectively. To install the Audio Extension Card simply plug the output cord of the extension card into the audio input connector of your video capture card. For model GV-600, the location of audio input connector is in the lower right corner of the capture card. For model GV-650, GV-750, and GV-800, the audio input connector is located in the upper right corner area.



GV-600 v2 *Audio Extension Card*

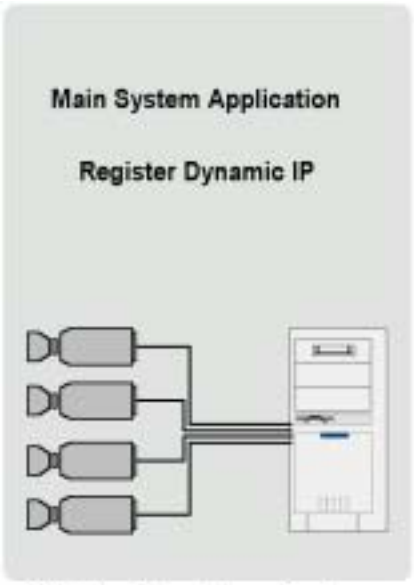
Note:

When the Real-time Display card and the audio extension card are correctly installed, you may go to Window's "Device Manager" to check the driver status, which is seen as illustration below.



Chapter 2
Software Installation

All GV-Series software applications are included in the CD-ROM provided within the system package. There are total 7 software applications inside the CD-ROM including Main System Application, Remote View, IP Multicast, GeoCenter, Register Dynamic IP, Remote Playback and PDA Viewer. The Main System Application and Register Dynamic IP Application should be install in the video surveillance system. The Remote View, IP Multicast, GeoCenter, and Remote Playback are all remote monitoring applications and should be installed in a remote view workstation.



GV Video Surveillance System

Remote View Workstation

This Chapter will describe the installation procedures for the main application only. The installation for rest of the software will be explained later in *"Chapter 6 Remote Monitoring System"*.

2.1 Install Main System Application

Before starting the installation of your Main System Application, you should check if all hardware components were installed properly. It is important that you complete the hardware installation in Chapter one first before proceeds to the software installation procedures below.

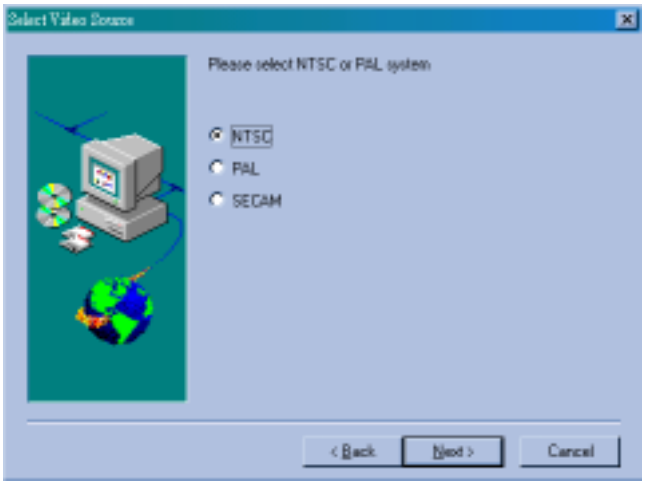
1. Insert GV-Series CD into the CD-ROM drive of your GV-System and run Setup.exe in the CD-ROM root directory.

2. A setup dialog box will appear with 7 options for you to choose, select GeoVision Main System and click [Next].

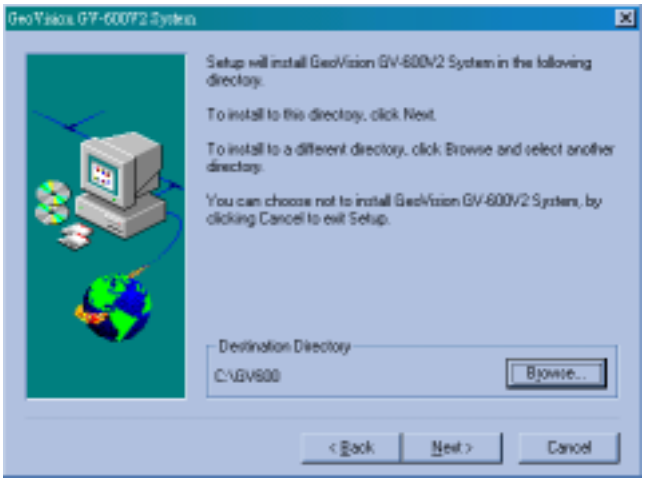
3. Select the model of your system in the product type dialog box and click [Next].

4. If the model you selected is GV-200, GV250, GV-600 and GV-800, then another product select dialog box will appear. Choose the actual model and click [Next] to proceed to the next step.

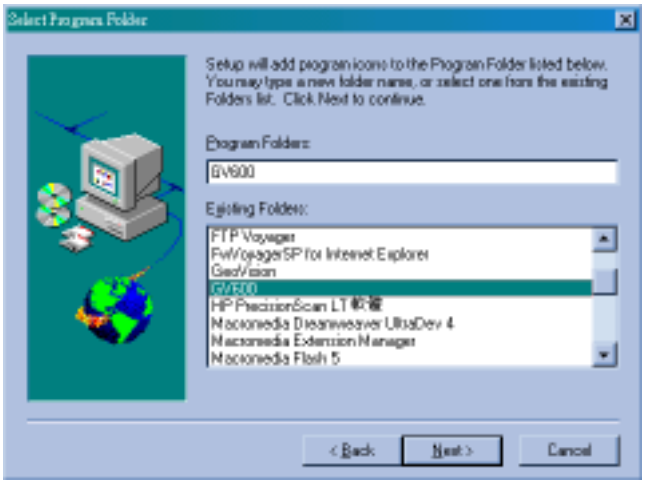
5. Now select the video standard for the source camera used in the system and click [Next]. There are 3 options: NTSC, PAL, and SECAM. You can also change the video standard later in the configuration of the Main System Application.



6. Click [Browse] if you wish to specify another destination directory otherwise click [Next] to proceed to the next step.


GeoVision GV-600V2 System
Setup will install GeoVision GV-600V2 System in the following directory.
To install to this directory, click Next.
To install to a different directory, click Browse and select another directory.
You can choose not to install GeoVision GV-600V2 System, by clicking Cancel to exit Setup.
Destination Directory
C:\GV600
Browse...
< Back
Next >
Cancel

7. In the select program dialog box you may change the name for your GV-System folder in the empty text column under Program Folder. If you are not sure what to do in this area simply click [Next] and the installation will start. Follow the rest of the instruction to complete the installation.


Select Program Folder
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing Folders list. Click Next to continue.
Program Folders:
GV600
Existing Folders:
FTP Voyager
FwVoyagerSP for Internet Explorer
GeoVision
GV600
HP PrecisionScan LT 軟體
Macromedia Dreamweaver UltraDev 4
Macromedia Extension Manager
Macromedia Flash 5
< Back
Next >
Cancel

2.2 Uninstall Main System's Application

To uninstall GV-Series System, click on the Uninstall icon from the folder. The uninstall program will delete all GV-Series system files on your hard disk. However, it does not delete the video images and the log files already saved in the hard drive of your PC.

CHAPTER 3

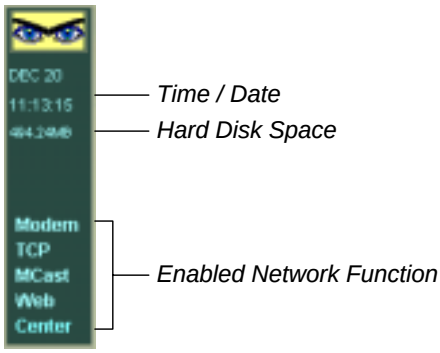
Main System Application

The Main System Application is Windows-based GUI system software that is used for control, setup, and monitor the GV-System. This chapter contains two sections: the first section will describe the function and features of the main screen, while the second section describes the detail of main screen's function panel.

3.1 Main Screen Features

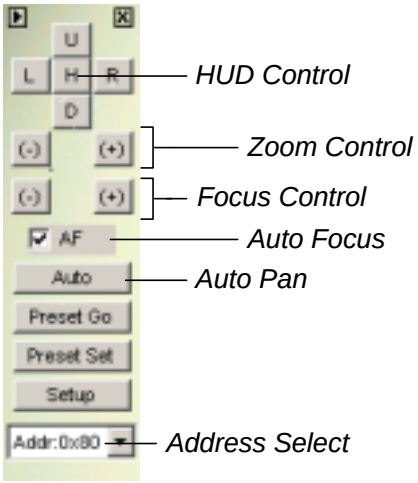
3.1.1 Status Panel

Status Panel Indicates the available HD space, system date/time, and the enabled network functions such as Modem, TCP and MultiCast, etc…



3.1.2 PTZ Control Panel

Before you can use the PTZ control panel you should have at least one PTZ camera installed within your GV-System first. Click the PTZ control button on your GV-System main screen to bring up the PTZ control panel. Your panel may look slightly different depending on the camera model you're using.



HUD Control: Controls the up, down, left, right action of your PTZ camera.

Zoom Control: Controls the zoom-in zoom-out action of your PTZ camera.

Focus Control: Controls the focus-in focus-out action of your PTZ camera.

Auto Pan: Directs camera to scan thru its entire range.

Preset Go: Directs camera to cycle thru its preset positions.

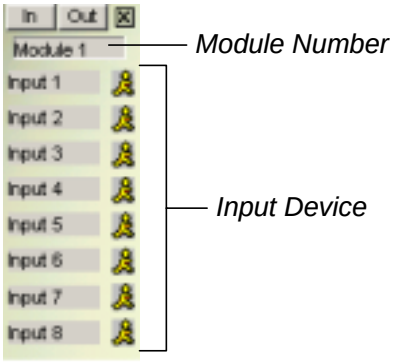
Preset Set: Allow you to set camera's preset positions.

Address: Specify the Com port address of your camera.

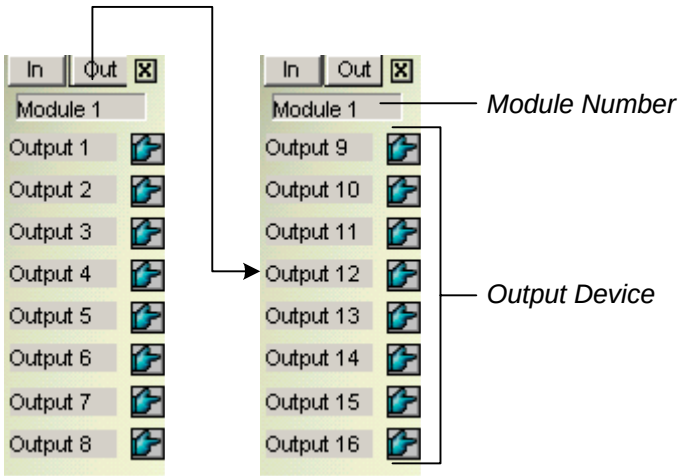
3.1.3 I/O Control Panel

Press the I/O icon to open the I/O control interface.

I/O Input Panel:
The I/O input panel displays the status of the input sensors from module 1 to module 9.



I/O output panel:
Sending the output signals to the relays or alarms of module 1 to module 9. (PT811 support output 1~8, GV-IO support output 1~16)



3.1.4 Camera Select Panel

Press the number of each desired camera to Zoom in or press the Num1~9, 0 and F1~F6 key for shortcut, please refer to p. 30 for Fast Key Reference in this manual.

3.1.5 Display Layout Panel

The display layout panel allows you to choose from 8 different display layout options.

3.1.6 Exit and Minimize Button

The [Exit] button contains four functions: Login/Exchange User, Logout User, Minimize, and Exit.

Login/Exchange User: Allows you to login as a different user.

Logout User: Allows you to logout from the system.

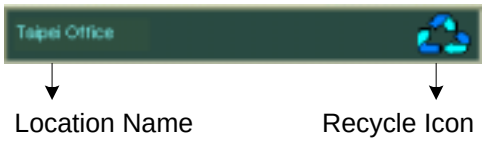
Minimize: Hide main screen in Windows status bar.

Exit: Allows you to shutdown the system.

3.1.7 System Location Display

[Location Name]: Allow you to add or edit the name or location of your GV system.

[Recycle]: This icon appears when the system is in the process of recycling.



3.1.8 Camera View Window

The camera view window displays the video event from your video cameras.

Snapshot:

[Snapshot] allows you to capture a camera image and save them as avi., bmp., Jpeg., or tif. files. Click on the camera caption of the camera view window, and the following dialogue box will appear. You may tag camera descriptions in the image file such as time/date, camera number, location, and choose color for the description background by clicking the option boxes below.

Use [Ctrl+ Num 1 ~ 9 0 and F1 ~ F6] on your keyboard for shortcut.

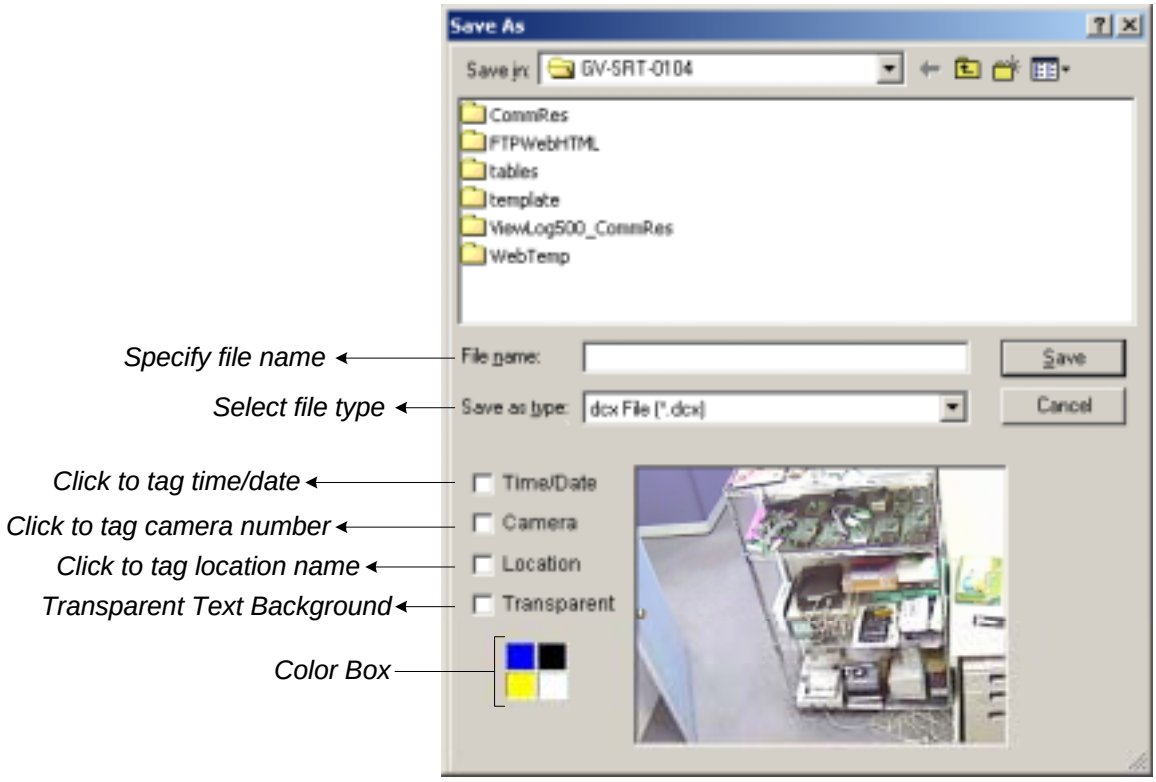
[Time/Date] Click to tag time and date in the snap shot image file.

[Camera] Click to tag camera numbers in the snap shot image file.

[Location] Click on this box to tag camera location in the snap shot image file.

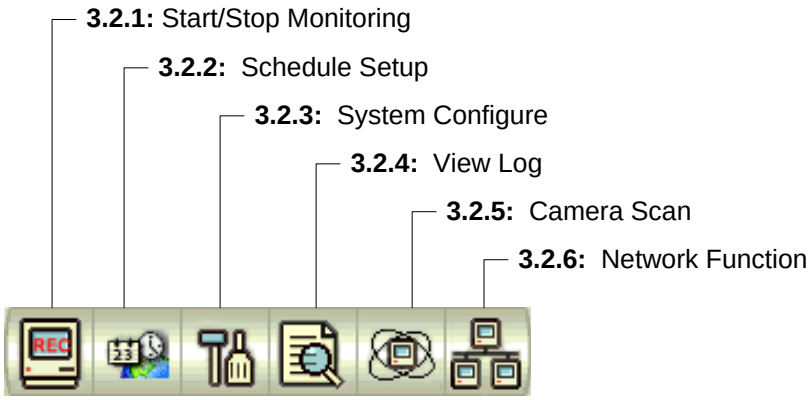
[Transparent] Click on this box to make the description background transparent.

[Color box] Click to select text color for the tag description.



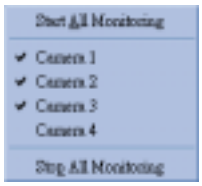
3.2 Function Panel

The Function Panel provides access to most of the GV-System's function and configuration. There are six buttons in the function panel with each button containing its own menu.



3.2.1 Start/Stop Monitoring

You may consider [Start/Stop Monitoring] button as the recording button of the system. Click on this button and the following menu will appear that allows you to select between start recording on all cameras or by individual camera.

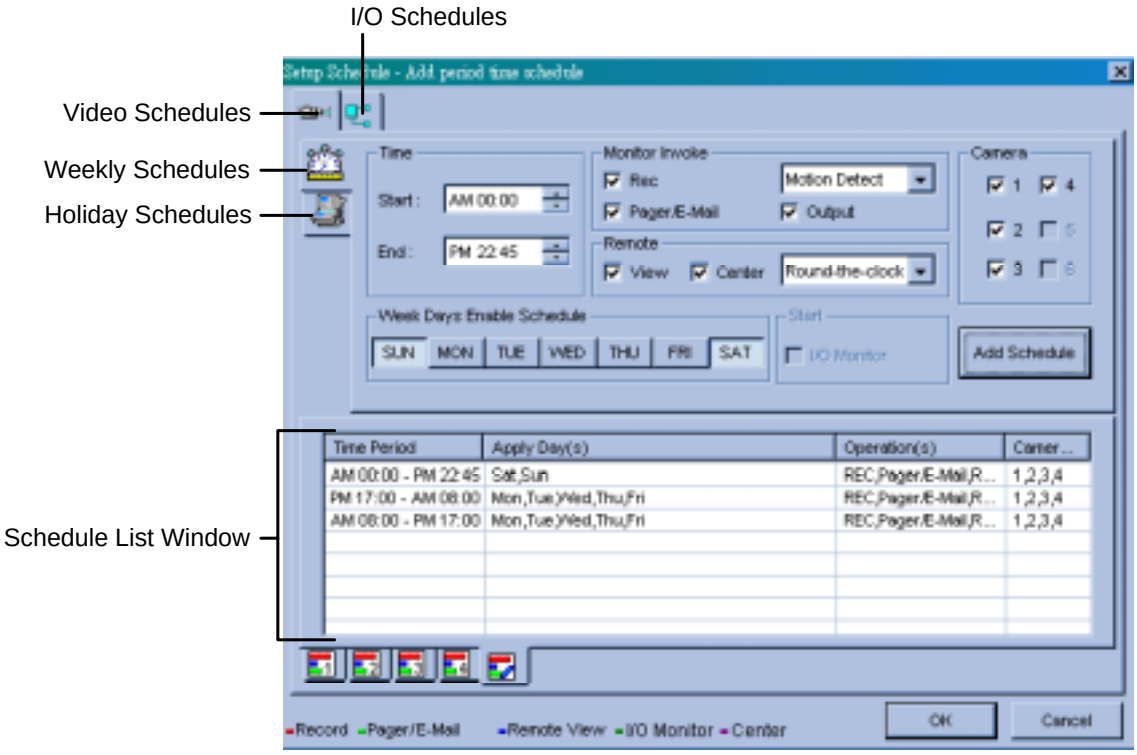


To start recording on all cameras simply select ***"Start All Monitoring"*** option. When in recording, the camera caption will be displayed in red color. To stop recording, select ***"Stop All Monitoring"*** and all recording will be stopped (You may use the **[F7]** key on your keyboard as Start/Stop Monitoring shortcut key).

You can also choose the camera you wish to record by clicking on the camera name within the menu. A check sign will appear before each camera name indicating its in recording mode. You may uncheck them to stop the recording.

3.2.2 Schedule

Click on the **[Schedule]** button and the following dialog box will appear. There are two types of surveillance schedules in GV-System: the video surveillance schedule and the I/O surveillance schedule. Each can be setup in weekly basis or exclusively by date. Your GV-System is capable of running multiple surveillance schedules; therefore, you can assign each camera with a different schedule. All surveillance schedules will be displayed in the schedule list window.



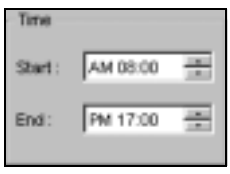
How to setup video surveillance schedules:

Before you can start a surveillance schedule you should have at least one schedule setup first. Setting up a surveillance schedule is like assigning a task to your GV-System. You specify the rules and timetable for the cameras and the cameras will perform these tasks base on your specification.

First, start by creating a weekly camera surveillance schedules. Click [Video schedule] tab and select [Weekly Schedule] and follow the steps below to complete the setup.

Step one: Select time period

Set starting and ending time of your preferred schedule event.



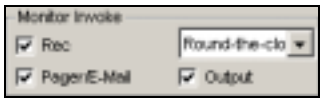
Step Two: Specify monitor invoke options

Rec: Click on the Rec option to enable or disable recording function.

Recording Mode: Use the drop-down menu to choose between Round-the-clock recording mode or Motion-detect recording mode. Round-the clock mode applies full time recording during the schedule period while Motion-detect mode records only when motions are detected.

Pager/E-mail: Click on the Pager/E-mail option to enable or disable **Hotline Alerts** during the surveillance schedule. The Hotline Notice will send alerts to users by pager or email when motion detector or I/O sensor are trigger.

Output: Click on the Output option to enable or disable sending output signals to the output pin during the surveillance schedule. This option requires the optional GV-IO hardware.



Step Three: Set remote function

View: Click on the view option to enable or disable remote view function during the surveillance schedule.

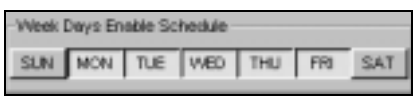
Center: Click on the center option to enable or disable sending pictures to GeoCenter.

Step Four: Camera select

Select cameras you wish to be used during the surveillance schedule.

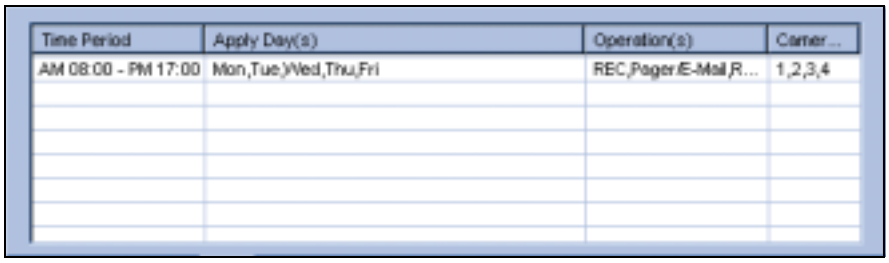
Step Five: Day Select

Select the days you with to be included in the weekly schedule. For example, if you wish to apply this schedule from Monday to Friday, simply select them by push down each day's button.

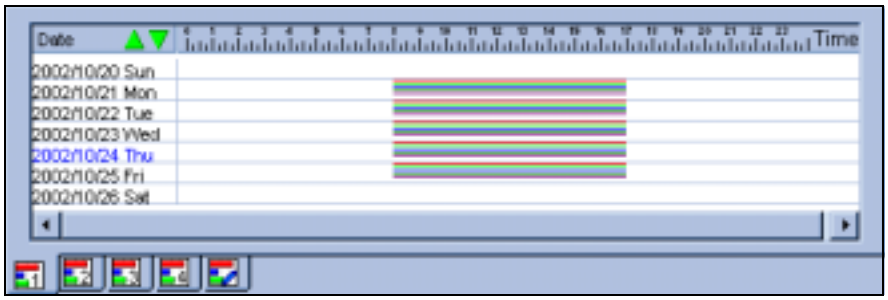


Step Six: Add schedule to the list

You have now complete the setup of this weekly schedule, click add schedule] button to add this schedule to the list. Detail of your schedules will be listed in the Schedule List Window.



You can also view each camera's surveillance schedule in bar chart view by clicking the camera select tab below the Schedule List Window. The bar chart are displayed in 5 different colors with each color representing a specific function.



[Red]: Recording Function

[Green]: Pager/Email Notification

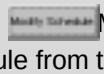
[Blue]: Remote View Function

[Jade]: I/O Monitor Function

[Purple]: Center Function

Note:

You can add as many schedules as you wish to the schedule list. For example, if you wish to have a different surveillance schedule for Saturday and Sunday, simply define another surveillance schedules as describe in the above steps, select SUN and SAT button and click [Add Schedule] button to add it to the schedule list. Your weekend schedule will appear next to the weekday schedules in the Schedule List Window.

If you wish to change a schedule, simply highlight it from the list, change the settings as you wish then click  Modify Schedule] button to apply your changes. If you wish to remove a schedule from the list, highlight it from the list and press the [Delete] key of your keyboard to remove it.

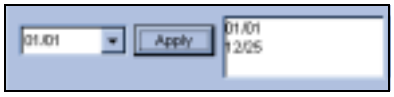
Setup video surveillance schedules for Holidays:

You may want to setup different schedules for Holidays such as Christmas or New Year. You can setup all holiday under the same schedules or you can assign different schedules for each holiday. Click the [Holiday schedule] control tab to switch to holiday setup window. The only difference between the Weekly Schedule and Holiday Schedule is the day selection area, the rest of the setup are same as the weekly schedule setup.

Please follow the Weekly Schedule's setup procedures from **Step One** to **Step Four**, and then follow the rest of the steps to complete the Holidays Schedule setup.

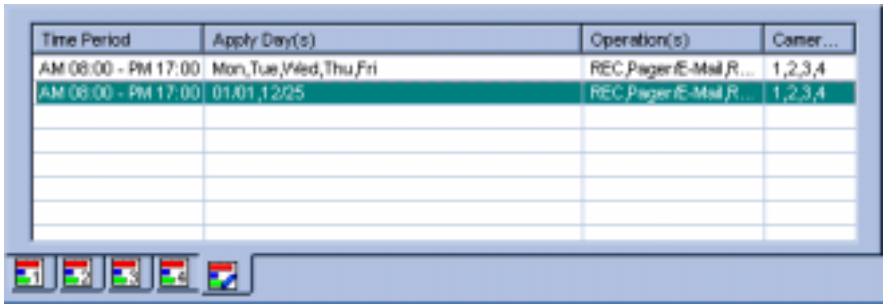
Step Five: Day Select

Click on the drop-down menu and select the date from the pop-up calendar. Click the [Apply] button to add your selection to the right hand side column. Specify the rest of the parameters as in the weekly schedule setup.



Step Six: Add Schedule to the list

Click [Add Schedule] button to add this schedule to the list. You'll notice that this holiday schedule now appears next to your weekly schedule.

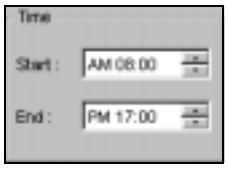


How to setup I/O surveillance schedules:

The I/O surveillance schedule works similarly as the video surveillance schedule with simpler operation. Click on the I/O schedules control tab to switch to I/O schedule setup window.

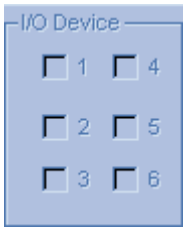
Step one: Select time period

Set starting and ending time of your preferred schedule event.



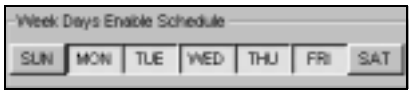
Step Two: Select I/O Device

Select the I/O device to be included in this surveillance schedule.



Step Three: Select Date

Select the days you with to be included in this schedule. For example, if you wish to apply this schedule from Monday to Friday, simply select the days by clicking its button.



Step Four: Enable I/O Monitor

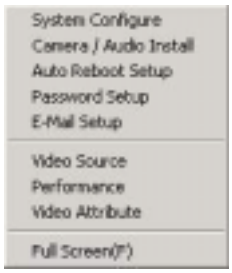
Click on I/O monitor to enable or disable I/O monitoring during the surveillance.

Step Five: Add Schedule to the list

Click add schedule] button to add this schedule to the list.

3.2.3 System Setup and Configuration

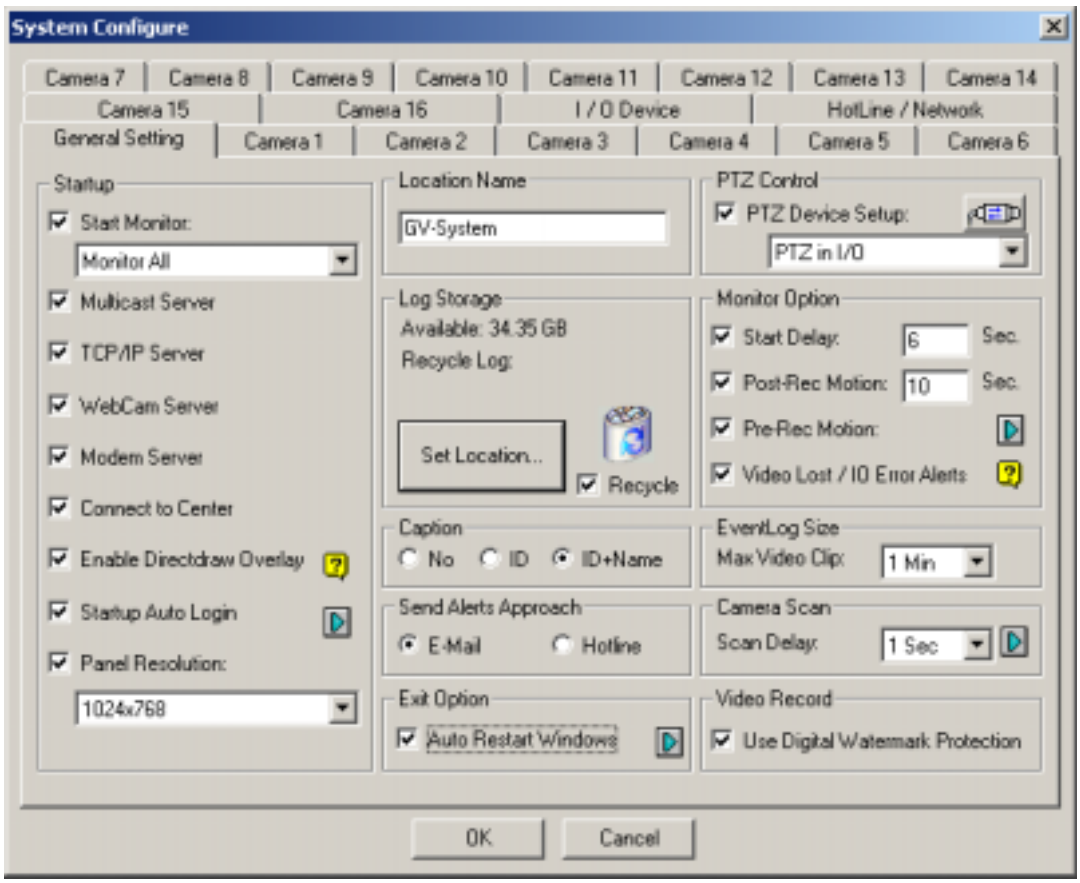
Press the [System Configure] button or [F9] shortcut key on your keyboard for system configuration setup. There are total 8 options included in the Configure menu. This section will explain each option in detail.



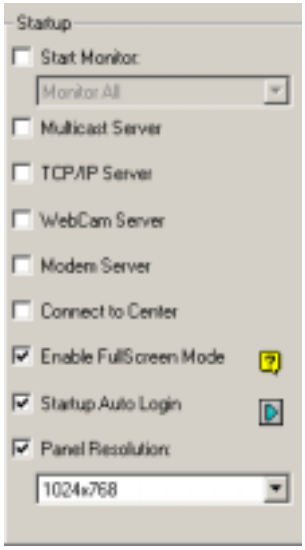
System Configuration

The System Configuration window includes four types of configuration setup: General Setting, Camera Setting, I/O Device Setting, and Hotline/Network Setting. You can select between these settings by clicking on its control tab.

General Setting



[Startup]
Select the check box to automatically start selected features at GV-system startup.



Start Monitor: Select the check box to automatically Start All Monitoring at GV-system startup. Three monitoring modes are available:

Monitor All: All cameras automatically start recording at GV-system startup.

Schedule Monitor: Start recording based on preset schedule.

I/O Monitor: Start recording based on I/O device setup.

Network Server: Choose which network function you wish to enable after system startup. The network function includes: Multicast Server, TCP/IP Server, Webcam Server, Modem Server and Connect to Center.

Directdraw Overlay: If this option is enable then your system will be able to switch to full screen mode. However, your VGA card will need to support direct draw overlay to use this function.

Startup Auto Login: Click to enable auto login function. Click on the arrow icon and the following dialog will appear. Enter the ID and passwords of the account you wish to use for auto logon. You can also specify whether to login in full screen mode or in normal mode.

Panel Resolution: Select 800x600 or 1024x768 to fit your screen.

[Location Name]
Allow you to specify a name for your GV-system, maximum 14 characters.

[Log Storage]

Recycle: Select Recycle check box if wish to automatically delete files at disk space shortage. If the Recycle option is not selected, the system will stop recording at disk space shortage.

Click [Set Location] to create folders for recorded files. This dialog box lists path of the recorded files, and disk capacity available for storage in MB. Click on the folder icon to create another location.

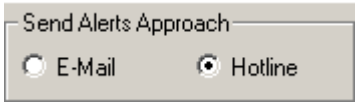
When the available storage space is lower than 500MB, recorded files will automatically be saved to next available folder.

Note:

For GV-100, 150, and 250, the minimum hard disk required for recording is 500MB. For GV-600, 650, 750, and 800 the requirement is 800MB.

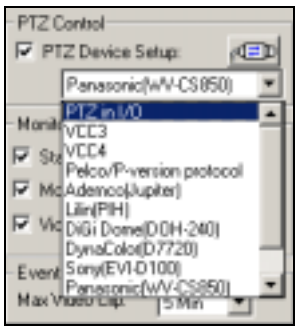
[Caption]
Allow you to add camera captions on the upper left corner of the camera view window. You have a choice to add either camera ID only or camera ID and camera name.

[Send Alerts Approach]
Choose E-mail to send alerts to pre-set E-mail account; choose Hotline to send alerts to pre-set pager or telephone number.



[Exit Option]
Two options are available: Auto Shutdown Windows and Auto Restart Windows. If you select auto shutdown windows the system will automatically shutdown Windows OS after you exit GV-System. If you choose auto restart windows then it will automatically restart Windows OS after you exit GV-system.

[PTZ Control]
The PTZ Control allows you to setup installed PTZ cameras. Select the make and models in the drop down list menu and click the PTZ setup button to activate it. If you cannot find your PTZ camera within the drop down list then most likely its not supported by the GV-System.



[Monitor Option]
Specify how many seconds to delay monitoring function after system startup.

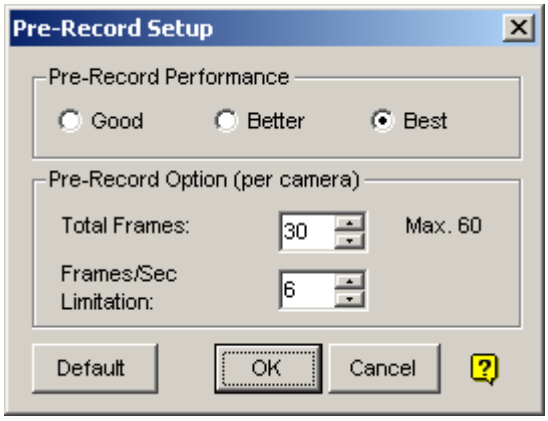
Start Delay: Enable this function and the system will delay the recording for a preset time after an alarm.

Post-Rec Motion: Enable this function and the system can be recorded for a preset time after motion detection occurs. (1 ~ 10 seconds)

Video Lost/IO Error Alerts: Enable this function and the system will send Email or Hotline alerts to notify you if your camera or I/O device lost signals.

Pre-Rec Motion: Allow you to record pre-motion images for a pre-set time prior to motion. To use this feature, follow these steps:

1. Select the [Pre-Rec Motion] check box to enable this feature.
2. Click the blue [Arrow] button next to [Pre-Rec Motion] to bring up the [Pre-Record Setup] dialog box.



Pre-Record Setup

Pre-Record Performance: There are 3 preset pre-recording performance settings: Good, Better and Best. The amount of physical memory of the computer, which the GV system is running on, will determine the pre-recording performance—the duration time of the pre-recording.

Table below shows the maximum pre-recording frame rate of each preset, and the physical memory requirements:

	Good	Better	Best
Maximum pre-recording frames per camera (fps)	15 fps	30 fps	60 fps
RAM required	128 MB	256 MB	512 MB
The recording frame rate is calculated based on a 320x240 recording size.			

Pre-Record Option (per camera)

[Total Frames] It allows you to set the maximum pre-recording frames of a camera.

[Frame/Sec Limitation] It allows you to set the maximum pre-recording frame rate (fps) of a camera.

Dividing the [Total Frames] by [Frames/Sec Limitation], you will get the pre-recording duration of each camera (in the above case, each camera will start to record 5 seconds prior to motion).

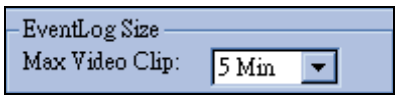
$$\textit{Pre-recording duration} = \frac{\textit{Total Frames}}{\textit{Frame/Sec Limitation}} = \frac{30}{6} = 5 \textit{ seconds}$$

Note:

Frame/Sec Limitation cannot exceed the preset recording rate of the GV system being used.

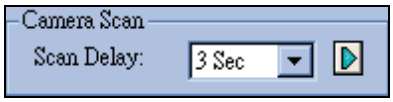
[Event Log Size]

It allows you to select the length of each event log from 1 to 5 minutes. If you select “5 Min,” then a 30-minute video clip will be break into six 5-minute files.



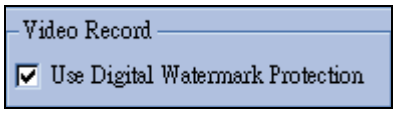
[Camera Scan]

It allows you to specify the Scan Delay from 1 to 10 seconds. Click on the [Arrow] icon and you can choose between single camera scan or four cameras scan.



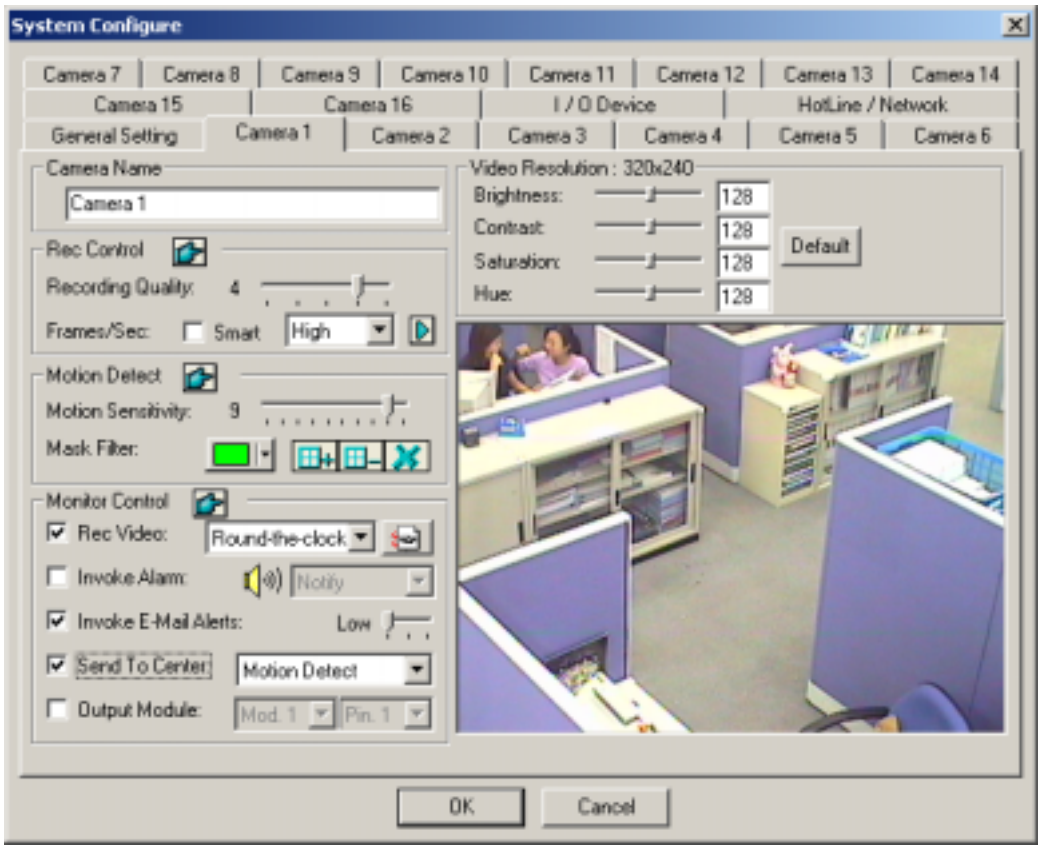
[Video Record]

Check the box to enable Digital Watermark Protection to prevent alteration or distortion of recorded data. The purpose of digital watermark is to provide copyright protection for an image or video clip. Watermark is not visible to human eyes, but the embedded watermark software of GV-system can help identify the authenticity of the recorded images.



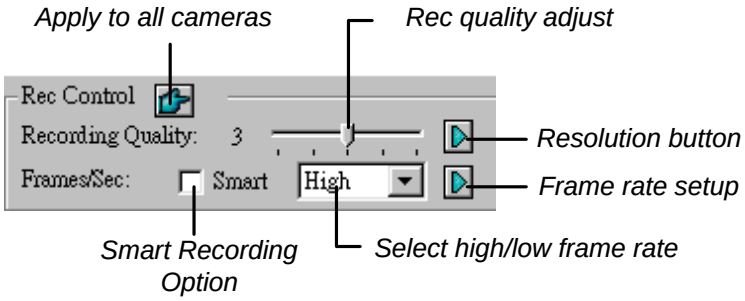
Camera Setting

Camera setting window allows you to configure each camera's motion detection sensitivity, recording quality, video adjustment, and etc… Each camera has its own setup window and you can use the camera control tab to switch between the cameras.



[Camera Name]
You can specify a name for each camera. You can name each camera according to its location or usage. For example, you can name camera 1= Lobby, camera 2= Elevator 1, and etc…

[Rec Control]
The Rec Control area allows you to set each camera's recording quality. The camera's recording quality is based on its resolution and compression rate. Higher quality picture will require more storage spaces.



Recording Quality: Allows you to adjust the video quality in 5 levels. Higher value equals to lower compression rate.

Resolution Button: Click on the arrow icon next to the Recording Quality slide bar to switch between the available resolutions.

Frame/Sec: Allow you to adjust camera's recording frame rate. There are three options available: Smart, High, and Low.

[Smart]: When Smart Recording Option is selected, the system will distribute as many frame rates as possible to the camera where motion occurs.

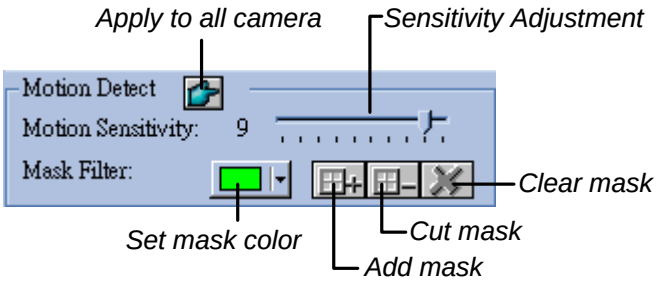
[High]: System will distribute high percentage of frames (not a definite frame number) to the selected camera while the other cameras will share rest of the frame rates. Assuming that all cameras are in action, selecting [High] ensures this camera always receive higher frame rate than the rest of the cameras. Effect can be seen in both preview mode and record mode.

[Low]: System will distribute low percentage of frame rates to the selected camera. Assuming that all cameras are in action, certain cameras are of least importance. System can be set [Low] in order to allow frame rate to go to more important cameras.

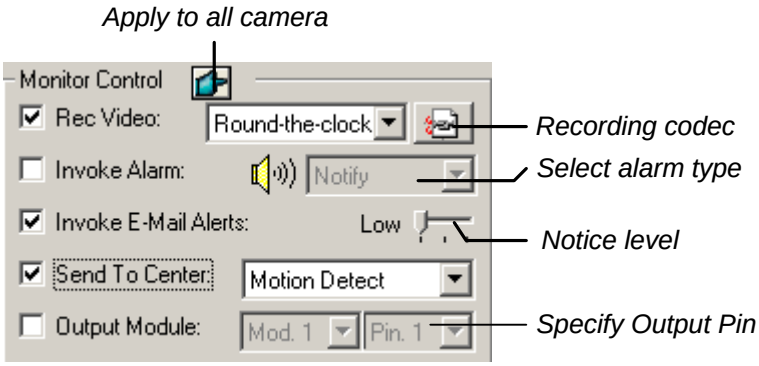
Frame Rate Setup: Allows you to limit camera's maximum recording frame rates. If the value you specify is 10 then it means this camera will not exceeds 10 frames/second. However it does not guaranteed that it would always record in 10 frames/second, as the actual recording frame rate will be dependent on the performance of your system. This setting will take effect in all recording mode including Smart, High and Low.

[Motion Detect]

This area allows you to adjust the build-in motion detector's sensitivity level from 1 to 10. The higher the value, the more sensitive the system is to the motion. Movement will be recorded when the motion exceeds the value. By applying mask to the camera window, system will ignore movements under "Mask" area. For example, you wish to observe your office but not the moving traffic outside the street. You may mask the office window containing traffic movements so that system will ignore the traffic, and record only the areas of the office that are not masked. Icons used to modify the mask area are as followed:



[Monitor Control]



Rec Video: Click this option to enable or disable this camera's recording function. The drop-down-menu allows you to choose between [Motion Detect] or [Around the Clock] recording mode. Click on the recording codec button to select between Wavelet and Mpeg 4 recording format.

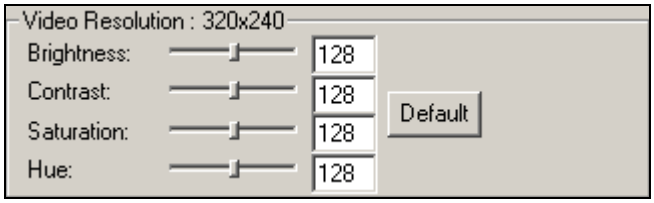
Invoke Alarm: By enable this camera's Invoke Alarm option the system will be able to generate a alarm sound when the camera detects a motion. There are 7 types of alarm sound to choose from in the Alarm type drop-down menu.

Invoke E-Mail Alerts: Enable this function and the system will send E-mail alerts when motions are detected. You may use the slider bar to select notice interval, whereas [High] = 0.5 second, [Medium] = 1 sec., and [Low] = 1.5 sec.

Send to Center: If you have installed Center at a remote site or you have applied the service to Center, You may define how to send the live video to Center, by either [Motion Detect] or [Round-the-Clock] functions.

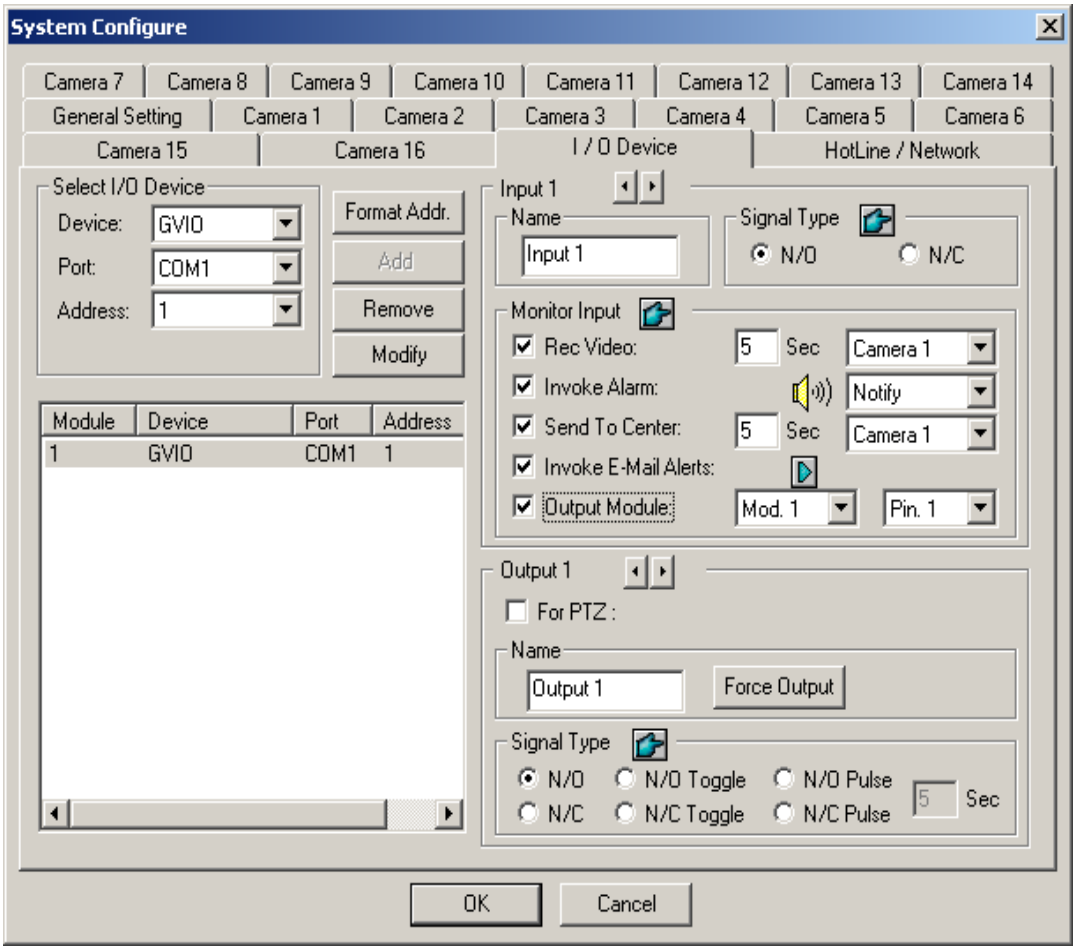
Output Module: Set the output of the camera to the module when invoked. The maximum controlled output is 9 modules, with 8 pins for PT811Device and 16 pins for GV-IO Device.

[Video Resolution]
Allow you to adjust camera's video characteristic such as brightness, contrast, saturation, and hue.



I/O Device Setting

External devices can be connected to the GV-Systems via I/O modules (GV-NET, GV-IO, GV-RELAY). This section will explain on how to configure and integrate I/O devices in the GV-System.

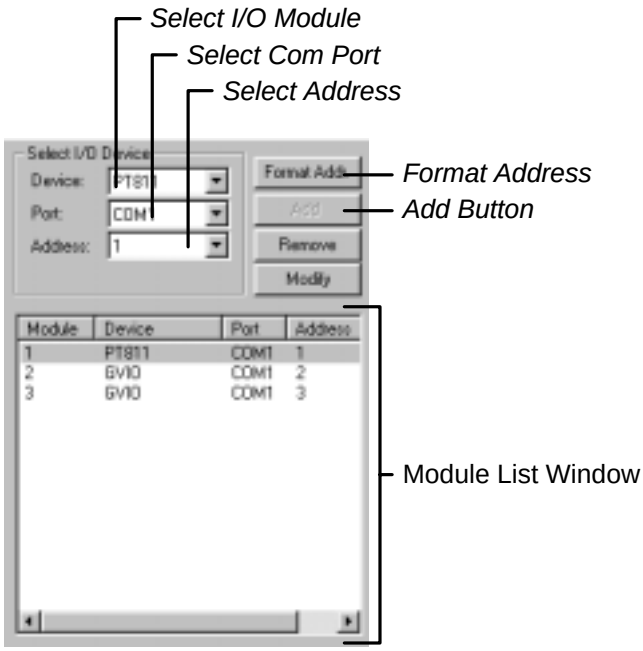


[Select I/O Device]

Before using the I/O modules, you have to setup the GV-System to recognize them first. You should have at least one GV-NET module connected to the Com port of your computer. Now in the [Select I/O Device] area choose the module you wish to install in the [Device] drop down menu, select Com port and address, then click [Format Add] button. The [Add] button will be unlocked if the system successfully found your module. Click the [Add] button and this module will appear in the Module List Window.

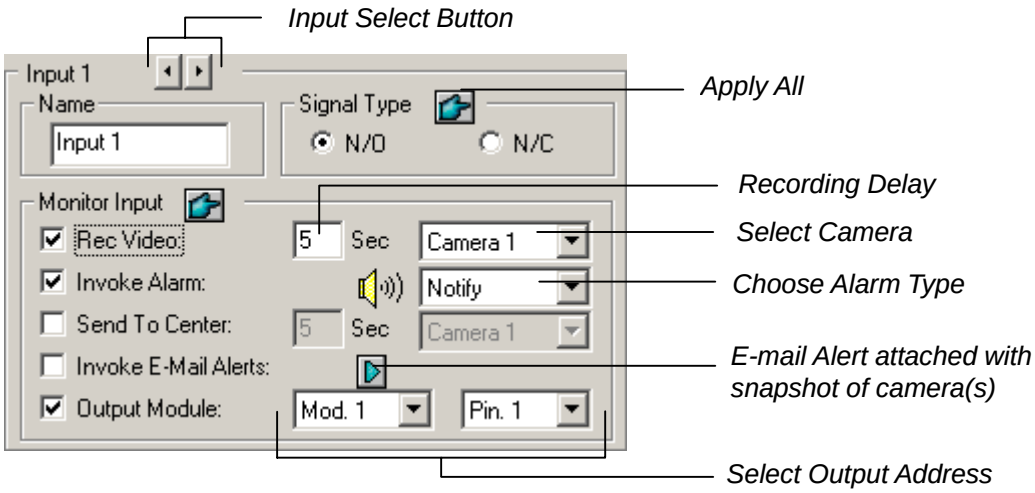
Note:

When you add several I/O devices (Max 9) in one GV-Net, you cannot do Format Addr. at the same time. First you must Format Addr. to I.O devices one by one, than add all I.O device in GV-Net.



[Input Setup]

If you have PT811 module connected and is properly setup within your system, then you will be able to configure its functions in the input configure area. Each PT811 can connect up to 8 input devices. You may use the [Input Select Button] to choose the device you wish to configure.



Name: You can specify a name for each input device in the Name text column.

Signal Type: Select signal type for your input device. You may use the [Apply All] button to apply your selection to all input devices.

Rec Video: Check this option if you wish to use this device to trigger recording (sensors or detectors). You may select which camera to record in the Camera Select drop down menu and specify the recording delay.

Invoke Alarm: Check this option if you wish to send alarm to the GV-System when this input device is trigger. You may select the alarm type in the drop down menu.

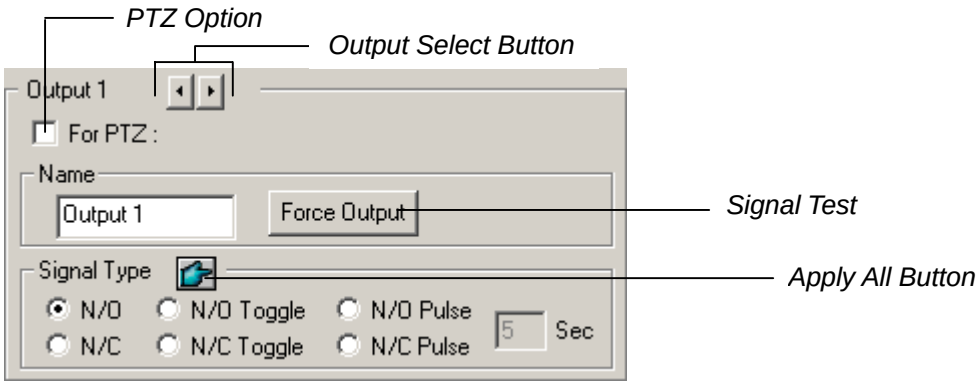
Send to Center: Check this option if you wish to send an image to the Center when this device is trigger. Select the camera in the drop-down menu.

Invoke Notice: Check this option to have GV-System notify you by Telephone/Pager or Email when this device is triggered. Click on the arrow icon to choose camera(s) snapshot that pictures you want to send by email when this device is triggered.

Output Module: If the input device is invoked, the system will send a signal automatically to an output pin.

[Output Setup]

Use the Output Select Arrow Buttons to select the output for modification. GV-IO supports up to 16 outputs, and PT811 supports up to 8 outputs.



PTZ: Connect to the panel

Name: Name your device.

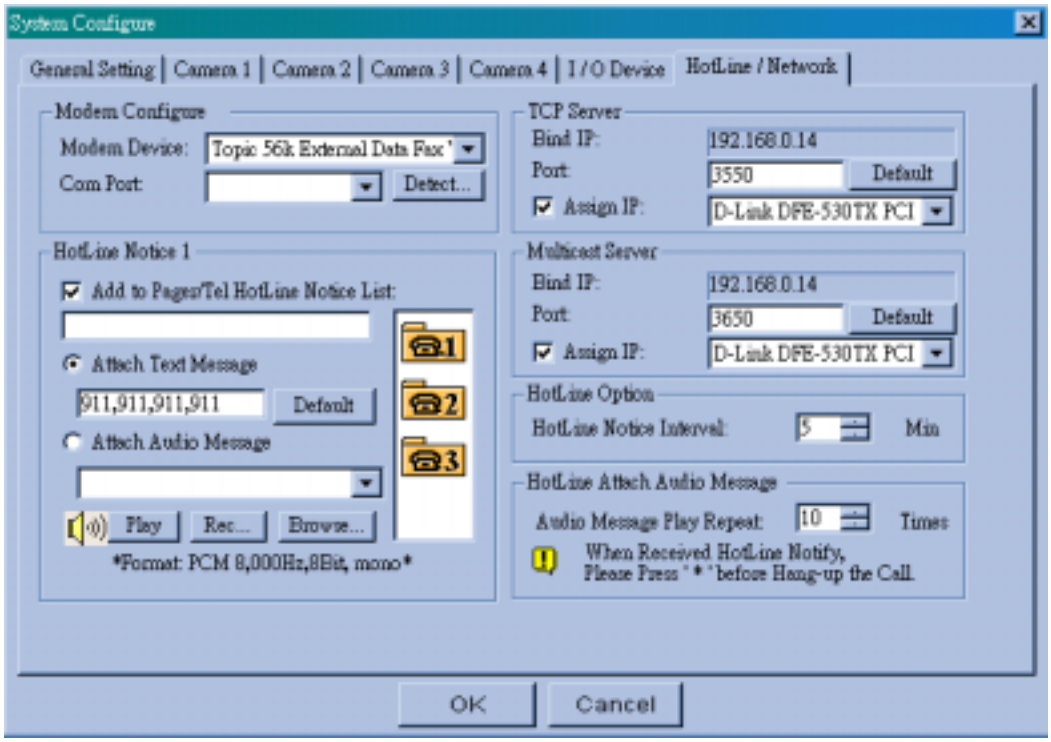
Force Output: Click on the [Force Output] button to send signal to the output device.

Signal Type: There are six signal types available: N/O (Normal Open), N/O Toggle, N/O Pulse, N/C (Normal Close), N/C Toggle, and N/C Pulse. Choose the one of suit mostly to the device that you're using. The N/O Toggle or N/C Toggle signal type is output high mode until press again to output low. You may also specify the pulse duration for pulse type signals.

Notes:

The same port cannot connect to both PTZ Dome and I/O device at the same time.

HotLine/Network Configuration



[Modem Configure]

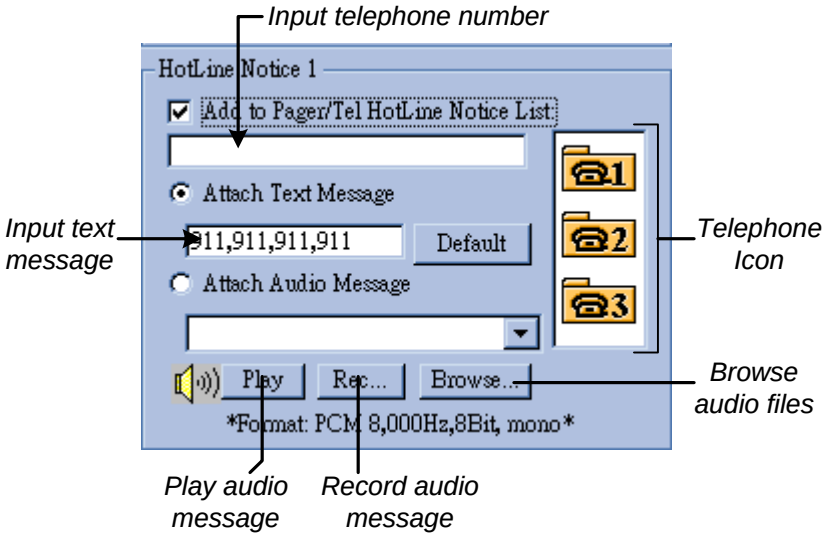
If you have installed modem in this PC, select the corresponding device and port, then press [Detect] button to test your modem.

Note *We do not recommend using internal modem (PCI or ISA).*

[HotLine Notice]

You may specify 3 different telephone/pager numbers for HotLine Notice. You can attach text messages if you wish to send alerts by pager or audio messages if you wish to send alerts by telephone.

How to Setup Hotline Notice Function



1. Click on the telephone icons.

2. Enable [Add to Pager/Tel hotline Notice List] option by clicking the check box before it.

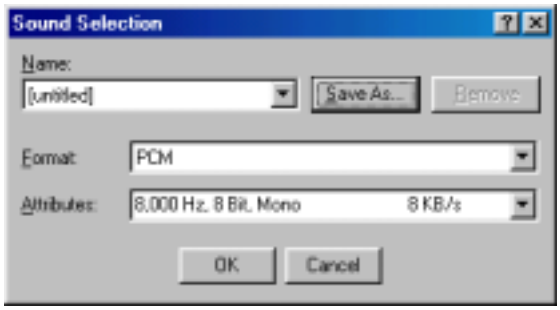
3. Enter the telephone number or pager number you wish the system to dial to in the telephone number column.

4. If the number you have entered is a pager number then you can enable [Attach Text Message] and input text messages in the text column. Therefore, when the system notifies you by pager, your pager's screen will appear with these text messages.

5. You can also attach audio files if you want the system to notify you by telephone. If you already have a pre-recorded message you can click [Browse] button to locate the message then click [Play] button to listen to it. If you wish to record your own message, click [Rec] button and follow the procedures below to create your own message. To record messages, you must have a microphone connected to the MIC input of your GV-System's sound card.

   Step 1: Press the recording button to start recording. Speak the message script clearly to the microphone and press stop button when you're finish.

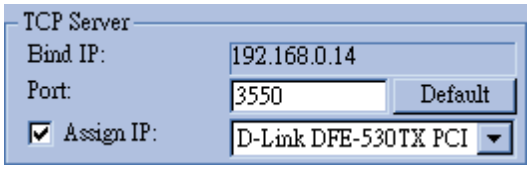
   Step 2: You can press the play button to review the recording. If you're sure this is the recording you want then choose [File] > [Save as] > [Change] and in the following dialog box select PCM 8,000 Hz, 8-bit Mono (the only format supported) and click OK.



Step 3: Try to playback this message in [HotLine Alerts] dialog box. Click browse to locate the file you've just recorded and click the [Play] button to play this recording. If a format other than PCM 8,000Hz, 8-bit mono is selected then an error message will pop up and you will not be able to play that recording.

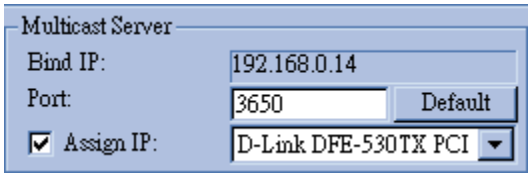
[TCP Server]

Allow you to setup GV-System's TCP server. Enable [Assign IP] option to enable the drop down list at the right hand side. Select the network card within the drop down list and your IP address will be displayed in Bind IP. The default port number for TCP server is 3550; you may assign different port by entering the port number in the [Port:] text column.



[Multicast Server]

Allow you to setup the Multicast server; its operation is similar to the TCP server setup describes above. The default port number for Multicast server is 3650.



Note

If you are using Dynamic IP, GV-Series system will automatically detect the IP Address per minute and replace IP so as to ensure re-engagement of remote end RemoteView IP Multicast WebCam and RemotePlayback system.

[HotLine Option]

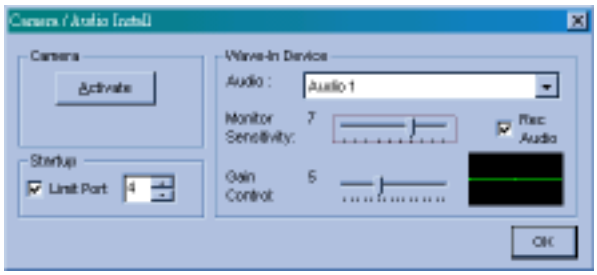
The HotLine Notice Interval allows you to specify the time interval between each notification. For example, if the interval time you specified is 5 minutes, then the system will call to your phone/pager every 5 minutes if motion still persist. The system will stop calling when no motions are detected.

[HotLine Attach Audio Message]

You can specify how many times to repeat the audio message when the system notifies you by Telephone.

Camera / Audio Install

Click [System Configure] button and select “Camera / Audio Install” option and the following window will appear.



[Camera]

Activate: Click on the [Activate] button and a camera list menu will appear. You’ll find a check box before each camera; click on the check box to activate or deactivate the cameras.

B/W: When the picture is jammed due to installation of both color and monochrome cameras on the system, select B/W to change all video display to monochrome. (Available only on GV-200)

[Start Up]

You may set the channel number for the camera to be activated and start up the function in next program execution.

Note

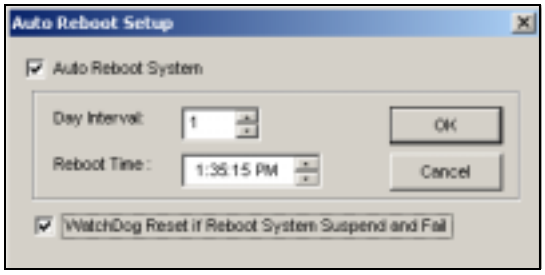
If you are using 16Cam / 4Port then Start Up, Camera Scan will disclose the desired Camera number by the quantity of Port so as to scan camera function.

[Wave-in Device]
Allow you to setup GV-System's audio function. Each channel can be configured separately. Choose the audio channel in the drop down list and adjust the parameters accordingly to your specification. The Rec Audio option should be enabled if you wish to activate audio recording function. The recording is control by the Monitor Sensitivity bar, which is adjustable from level one to level 10; the higher the value the more sensitive it is to environmental sound and is more likely to trigger the recording. The Gain Control bar allows you to add boost to the audio input level.

Auto Reboot Setup

Click [Configure] button, select "Auto Reboot Setup" from the menu, and the following dialog box will appear. Click on Auto Reboot System to enable this function and the settings in the dialog box will be unlocked. In [Day Period] you may specify the day interval of each auto-reboot (range from 1 ~14 days), and in [Reboot Time] specify in what time you want the system to perform auto reboot.

The [WatchDog Reset if Reboot System Suspend and Fail] option is for avoiding system lockup during an auto reboot. Enable this function allows the Watchdog function in your GV-Series video capture card (available in GV-600, GV-650, GV-750, and GV-800 only) to reset your system if auto reboot fail to restart for more than 5 minutes.

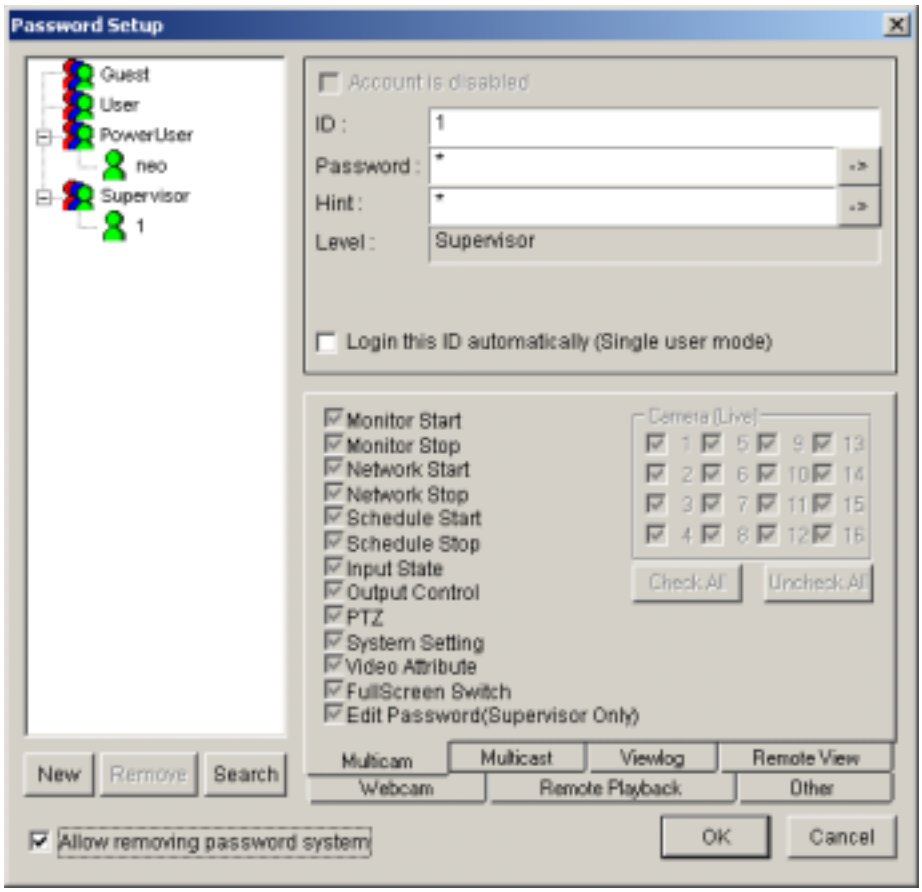


Note:

The WatchDog option will be closed if the option of "Auto run GV-System when window startup" is not enable during the main application installation.

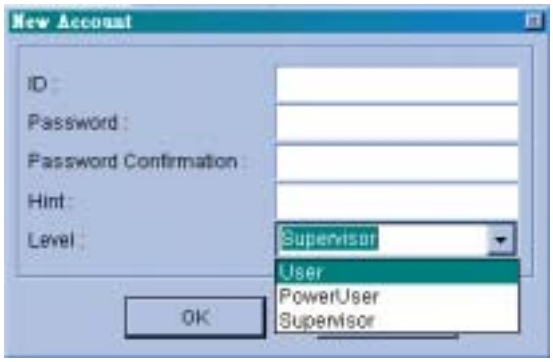
Password Setup

Click [Configure] button, select “Password Setup” from the menu, and the following dialog box will appear. The Password Setup function allows you to define a user profile for each GV-System user. A user’s profile determines which functions a user is allow to access. Only the supervisor level users can access to Password Setup function.



Add New User

Step 1: Click the [New] button located below the User list window and the New Account dialog box will appear.



Step 2: Input the ID name and the passwords for your new user, you are required to input passwords one more time for confirmation.

Step 3: You may add a probable hint for your user in case they forgot their passwords (this function is optional). For example, you may use this user's birthday as the password hint. Therefore, by entering their birthday in the Hint column will allow the system to display their passwords.

Step 4: Use the drop down menu and select an authorization level for your user. Four levels are available: Supervisor, PowerUser, User and Guest. Supervisor will have access to all GV-System functions while PowerUser and User will be restricted to use some of the functions. (You can specify which functions to grant or deny for the PowerUser and User later in Edit User Profile.) Guest level user is allowed to view video only and is restrict from all GV-System functions. You cannot create additional Guest profile as they share one universal ID and passwords.

Step 5: Click [OK] and the new user will be added. User information will appear in the User Profile area and the accessible functions will appear in the function area.

Edit User Profile

Step 1: Locate the user you wish to edit in the User List window. You may use the [Find] button to find the user profile more quickly.

Step 2: In the User Profile area you can change user ID and passwords.

Account is disabled: Enable this option if you wish to disable this account but would like to keep the profile in the user list.

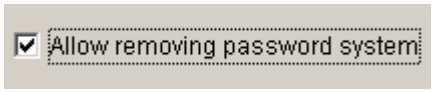
Login this ID automatically: Enable this option if you wish to use this account for auto login.

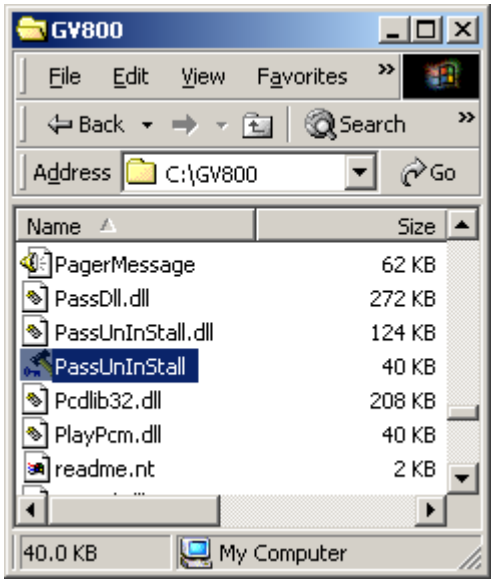
Step 3: You can grant and deny users authorization to access GV-System's function in the Functions area. Functions are categorized in 7 categories; use the tab control button to select between them. Each category will have a list of function with a check box before them. Check the box to grant function and uncheck to deny it. Click on the name of function and a yellow tag will appear with a brief description of the function.

Step 4: When finish, click [OK] button to save your changes to the user profile.

Allow removing password system

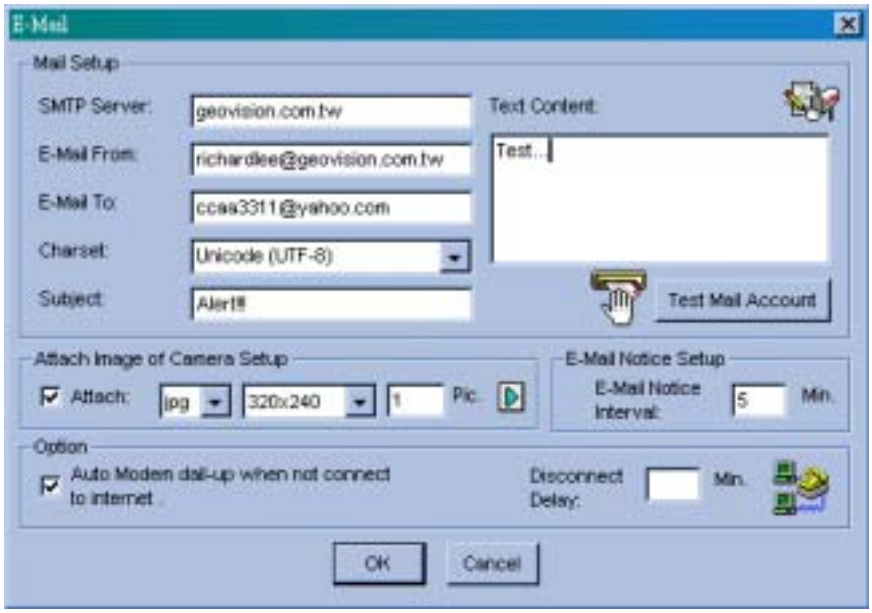
This option allows supervisors to execute passUnInstall.exe and remove the passwords in case of the passwords are lost.





E-mail Setup

Before you can use Invoke Notice Email function you'll need to setup GV-system's email account first. Click [Configure] button at GV-System main screen's function panel, select Email Setup, and the following dialog box will appear.



[Mail Setup]:

Step 1: Input your mail server name in "SMTP Server" column.

Step 2: Input a reply email address in "E-Mail From" column (optional).

Step 3: Input the email address you want to send alerts to in "E-mail To" column.

Step 4: Select a charset most suitably to your specification from the drop down menu.

Step 5: Enter subjects and text content in the text column next to them. Both are optional function and you can leave them empty if you do not require them.

Step 6: Click [Test Mail Account] button to see if the Email function were setup properly.

[Attach Image of Camera Setup]:
You have the option to attach an image of the captured event when the system notifies you by email.

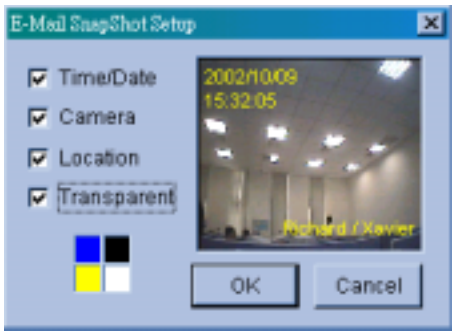
Step 1: Click [Attach] check box to unlock this function.

Step 2: Use the drop down menu to choose between png or jpg image format.

Step 3: Select image size, there are 3 sizes available: 320 x 240, 160 x 120, and 120 x 90.

Step 4: Specify how many pictures you like to send out (accept 1~6 pictures).

Step 5: Click on the arrow icon and the snapshot setup dialog box will appear. You can tag Time/Date, camera name, and location name on the image file by checking the check box before them. Use the color box to choose the text color most suitable to the camera's surrounding environment. Check [Transparent] if you wish to make the text background transparent otherwise the text background will appear in black.

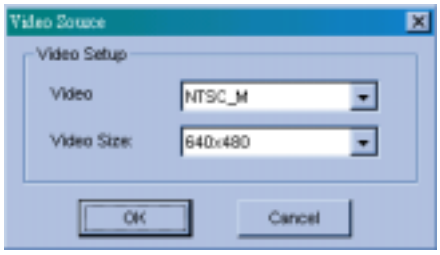


[Email-Alerts Setup]:
If the camera continues to detect motions then the system will continuously send emails to notify you. You can specify the time interval between each email. The default time interval is 5 minutes (configurable from 0 to 60 minutes); therefore if motions occur for more than 15 minutes then you will receive 3 emails. If motions occur for less than 5 minutes, then you will receive only one email.

[Option]:
If you are using a dial-up modem then it is unlikely that your system will stay online continuously. Therefore, you can use the [Auto Modem dial-up] option and the system will automatically dial-up to the Internet when it is instruct to send email notification. The Disconnect Delay option allows you to specify how long you want the system to stay online. The default is 5 minutes (configurable from 0 to 30 minutes), which also give you some time if you want to connect to the system by Webcam viewer or other Geovision remote view applications to view the incident. The system will disconnect itself after 5 minutes or specified time.

Video Source Setup

Your GV-System supports both NTSC and PAL video standards. Click Configure] button, select [Video Source], and use the [Video Standard] drop down menu in the dialog box to select the correct standard for your camera.



Performance

Click [Configure] button then select “Performance” and the following menu will appear. This function is only available to GV-650, GV-700, GV-750 and GV-800.

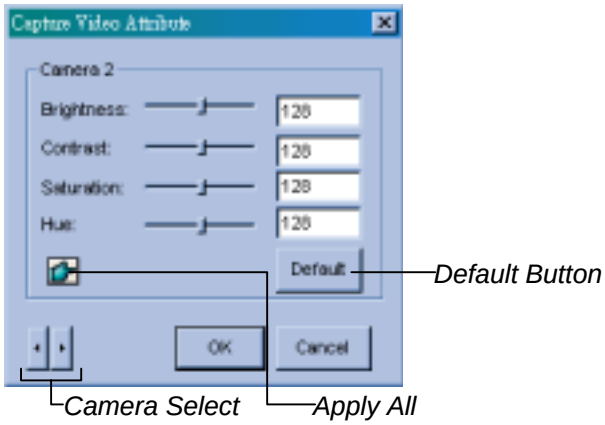
Preview Master: The Display speed increases because the system resource will focus on the monitoring after clicking Preview Master icon.

Both Master: Both display and recording speed is at the average because the system resource is allocated equally.

Record Master: The recording speed increases because the system resource will focus on the recording after clicking on Record Master icon.

Video Attribute Setup

The Video Attribute Setup allows you to separately adjust each camera's video characteristic. There are four parameters available: Brightness, Contrast, Saturation, and Hue. Use the slider bar next to each parameter and adjust them to your preference. You may use the default button to reset all four parameters. Use the Camera Select button to select between cameras or you may also use the Apply All button to apply your setting to all cameras.



Full Screen

Click [Configure] button, select [Full Screen] from the menu, and the system will switch to full screen display. Point your mouse to the camera view window, right click on the mouse and select [Full Screen Mode Switch] to switch back to normal screen display.

3.2.4 View Log

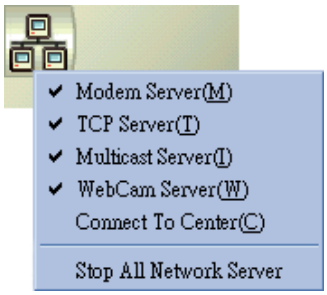
On the function panel click View Log] button and this will launch the view log application. The view log application allows you to playback recorded video files or image files. View Log's detail description will be explained later in Chapter 5.

3.2.5 Camera Scan

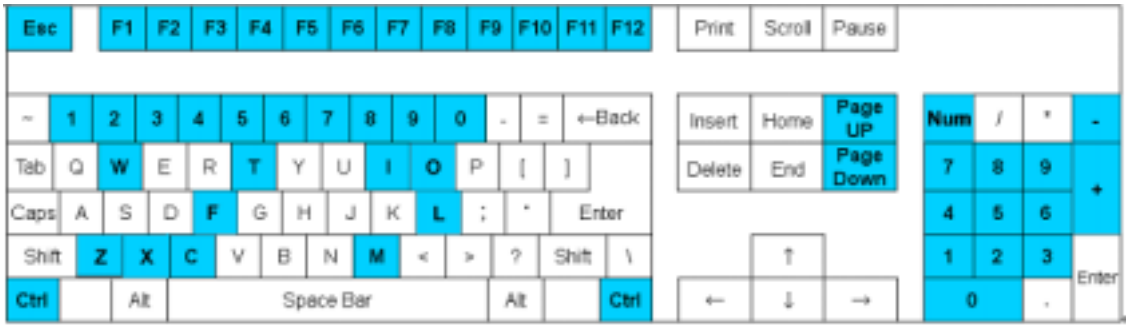
Click the [Camera Scan] button or the [F11] key of your keyboard to star/stop camera scan function.

3.2.6 Network Functions

Your GV-System can be connected to various remote view applications (each remote view application will be explained in detail in the later chapters). However, before you can use these remote applications, its related application or network server should be enabled first in the GV-system.



3.3 Fast Key References


Esc
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12
Print Scroll Pause
~ 1 2 3 4 5 6 7 8 9 0 . = ←Back
Insert Home Page UP
Delete End Page Down
Num / * -
7 8 9 +
4 5 6
1 2 3 Enter
0 .
Tab Q W E R T Y U I O P [ ]
Caps A S D F G H J K L ; ' Enter
Shift Z X C V B N M < > ? Shift \
Ctrl Alt Space Bar Alt Ctrl
↑
← ↓ →

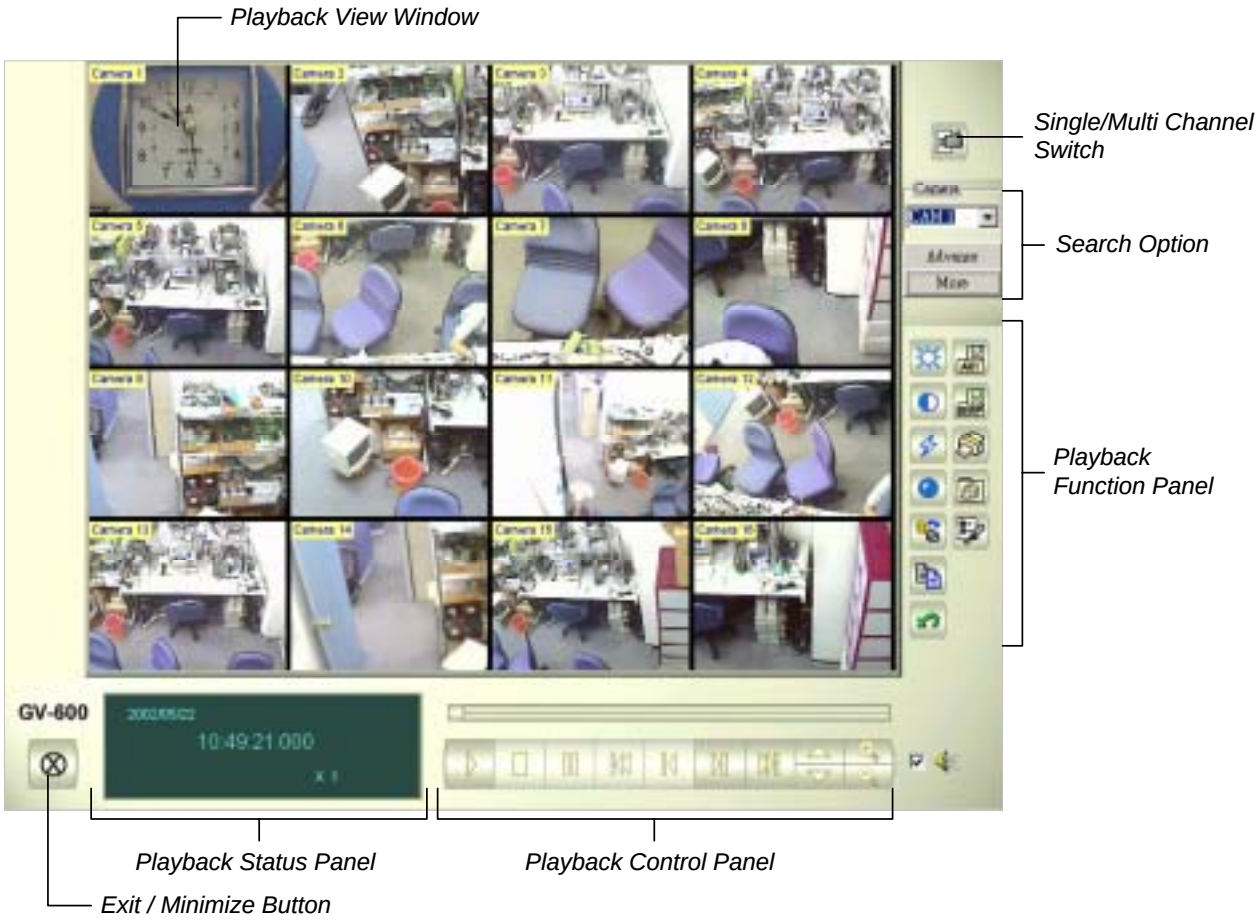
Esc	**:** Return to default screen
Num 1~ 9 0 and F1~ F6	**:** Zoom in camera window
F7	**:** Start Monitor /Stop Monitor
F8	**:** Start Schedule Monitor/Stop Schedule Monitor
F9	**:** Set up System Configuration
F10	**:** Start Viewlog (playback)
F11	**:** Start/Stop camera scan
F12	**:** Network functions
M m	**:** Start/Stop Modem connection
T t	**:** Start/Stop TCP/IP connection
W w	**:** Start/Stop Webcam connection
I I	**:** Start/Stop IP Multicast connection
C c	**:** Start/Stop Center connection
F f	**:** Start/Stop Full Screen
L, l	Login / Exchange User
O, o	Logout User
Z, z	Minimize
X, x	Exit
Page Up	**:** Zoom in previous camera
Page Down	**:** Zoom in next camera
Ctrl+ Num 1 ~ 9 0 and F1 ~ F6	**:** Snapshot
,	: Change size of camera windows

CHAPTER 4

View Log Application

The View Log Application enables you to search and playback recorded video event based on specified search criteria. You can start the View Log Application by clicking the [View Log] button on the Main System Screen. The View Log Application is a separated program running under the GV-System and will not interrupt the operation of your Main Application. You may use the Windows Task Bar to switch between the Main Application and View Log Application. If your GV-System is equipped with dual view display then you can move the View Log application to the second monitor screen allowing full view on both applications.

4.1 View Log Screen Features



4.1.1 Single / Multi Channel Switch

Click on this button to switch between single channel and multi channel display. Single channel will display one playback view window while multi channels will display all available channels.

Single Channel

Multi Channel

4.1.2 Search Option

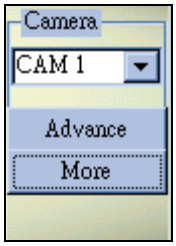
There are two ways to search recorded video events in View Log Application. The standard search function and the advance search function. You can search for video event that was recorded within a specific range of date and time by using the advance search function.

Normal Search

The Normal Search function is a more direct way to find files if you know exactly when and which camera's video event you're looking for.

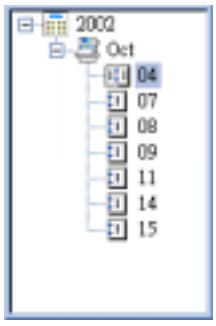
Step One: Select Camera

Click on the camera drop down list and select the camera that contains the video event you're looking for. After selecting the camera click [More] button and a folder tree will appear on the left.



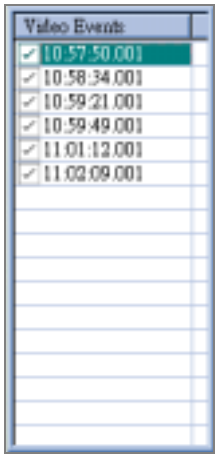
Step Two: Select Date

The View Log's folder tree contains 3 levels of selections, which are year, month, and date. Select the date by using the 3 levels folder tree and all video events within the selected date will be listed in the Event List Window below.



Step Three: Select Time
Each file in the Event List Window can be identified by its recording time. Select a file from the list and it will appear on the Playback View Window.

You can also select multiple events and play them back continuously by holding the [Ctrl] key of your keyboard and left click on each event to highlight it in the Event List Window. To select a series of events, left click on the first file, hold the [Shift] key of your keyboard, and left click on the last file. All files within the field will be highlighted in the Event List Window.



Advance Search

You can search for video event that was recorded within a specific range of date and time by using the advance search function.

Step One: Start Advance Search
Click on the [Advance] button to bring up the Advance Search Panel.

Step Two: Specify Search Range
In Time Period, use the drop down list to specify the starting date and the end date of the search range.

Step Three: Select Cameras
In the Select Camera section choose the cameras you wish to be included in the search range then click [OK] button.

Step Four: Playback files
All events match to the search range you specify will be highlighted in the Video Event List Window, click the [Play] button to playback all files consecutively.

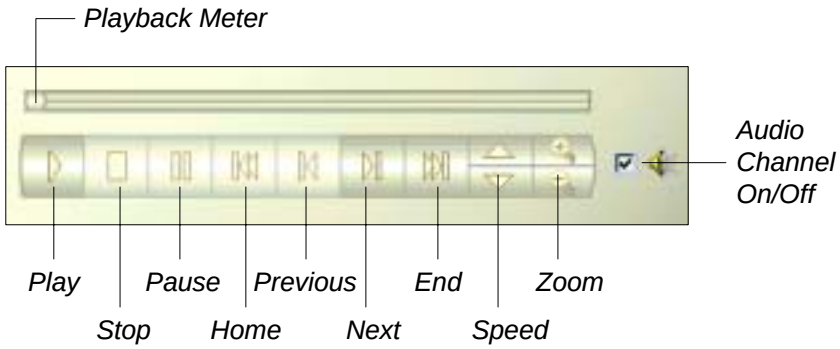
4.1.3 Playback Control Panel

After finding the video event you're looking for you can now play it back from the View Log Application by using the playback control panel. The Playback Control Panel contains the playback buttons, speed adjustment buttons, and the zoom adjustment buttons. Click the Play button to start playing the selected video.

The Playback Meter will indicate the play progress, and you can use the scroll to move forward and backward during the playback.

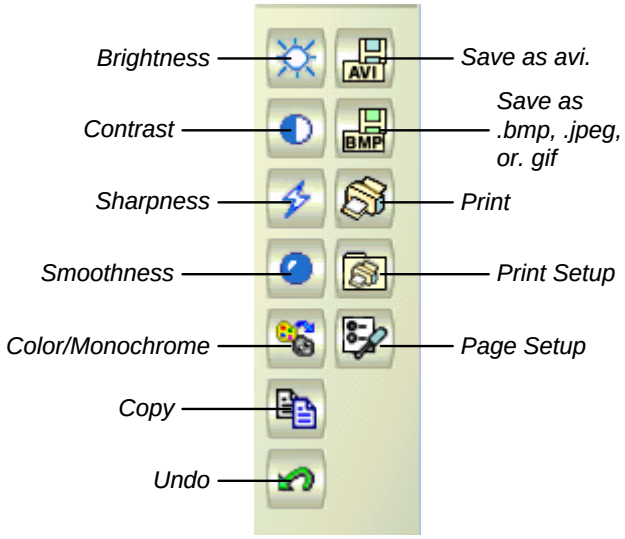
Audio Playback

You can also playback audio files if your system is equipped with the audio recording function. Click on the check box to enable Record Channel playback function. You can search and playback audio recording files the same way as the video files.



4.1.4 View Log Function Panel

The View Log Function Panel allows you to adjust the video characteristic of the selected video file.



Brightness	Allow you to adjust the picture brightness from –255 ~ +255.
Contrast	Allow you to adjust the contrast level
Sharpness	Allow you to add sharpness to the video image. Each click will apply a small amount of sharpness effect to the picture. You may click the [Undo] button to remove the effect.
Smoothness	Allow you to add smoothness to the video image. Each click will apply a small amount of smoothness effect to the picture. You may click the [Undo] button to remove the effect.
Color/Monochrome	Allow you to switch between color or black and white image.
Copy	Allow you to copy the image
Undo	Allow you to undo the sharpness or smoothness you applied to the image.
Save as avi	Allow you to save a video as avi file.
Save as bmp, jpeg, or gif	Allow you to capture an image from the video file and save it as bmp, jpeg or gif file.
Print	Allow you to print out a video file's image.
Print Setup	Allow you to choose the printer and print setup.
Page Setup	Allow you to adjust the page layout.

4.1.5 Merge Video With Audio

Click [Save as AVI] button from the View Log Functions Panel, select “Video Merge With Audio” from the menu and the following dialog box will appear. This option allows you to combine audio and video files of the same recording time and save them as AVI movie.

另存新檔
Note
1.) Merge all files in between the Start-Time of the first selected event and the End-Time of the last selected event.
2.) Those video files with different file formats other than the first selected file will not be merged. (Ex. Different Codec and Resolution)
Select Save Option
Show date on avi file
Show time on avi file
Select Text Color for Date/Time
Black
White
1128
Event20021128152752001.avi
存檔(S)
取消
AVI Files (*.avi)

4.1.6 Playback Status Panel

The Playback Status Panel displays the date, time, and the playback speed of the selected video event.

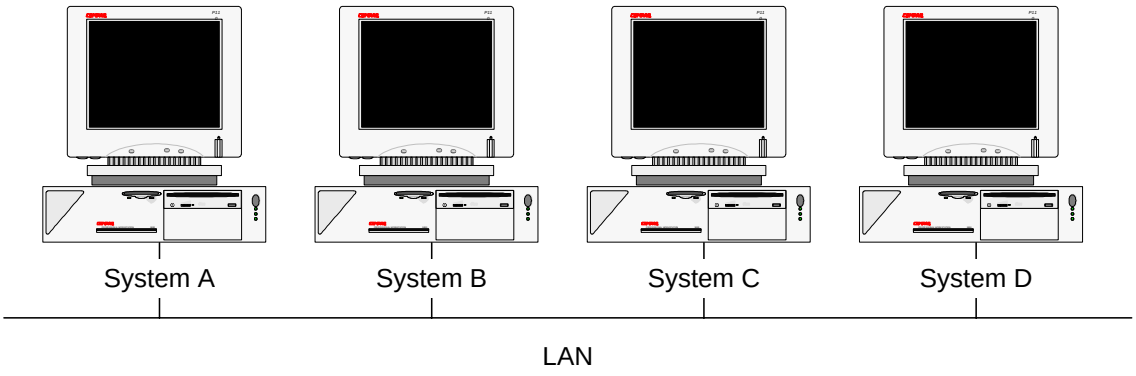
4.1.7 Exit and Minimize Button

Minimize: Hide screen in Windows task bar.

Exit: Close View Log Application.

4.2 Playback Video Files Over LAN.

When you connect more than one GV-System to a Local Access Network, you can use ViewLog from one of the systems to playback video files on other systems. For example, if system A, B, C, and D are in the same LAN, then you can use System A's ViewLog application to playback video files reside on System B, C, or D.



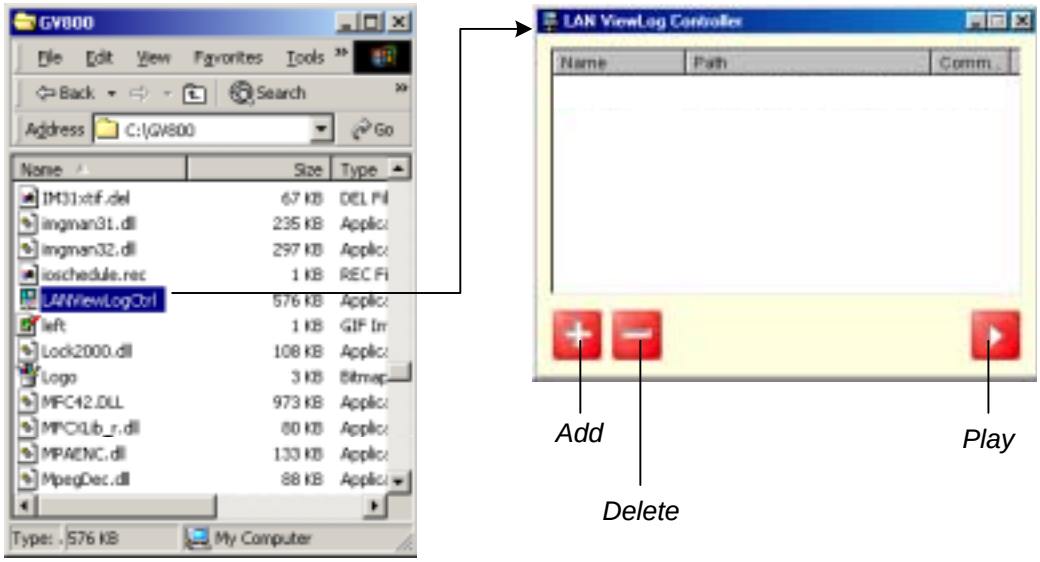
Step One: Share System B's GV-System folder over network

1. Double-click on System B's **My Computer**.
2. In the **My Computer** window, find the hard disk drive that contains GV-System software. Find the folder or folders that contain video file data (in this example: GV-650). Select the **File** menu, and then click **Sharing and Security**.

3. The properties dialog box of the file or folder shared opens. Run the Network Setup Wizard and follow the provided instructions

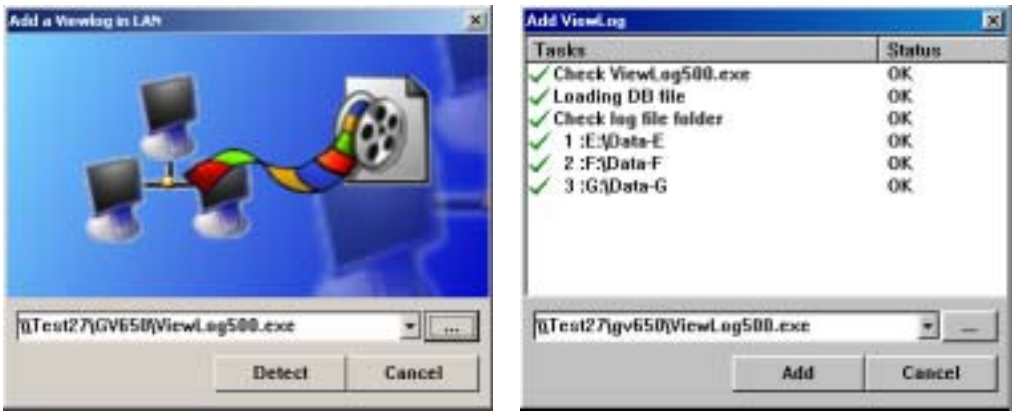
Step Two: Run LANViewLogCtrl.exe in System A

Run LANViewLogCtrl.exe under System A's C:\GV800\LANViewLogCtrl.exe (Assuming System A is running GV800 under Hard Disk C). This will start the LAN ViewLog Controller Panel in System A.



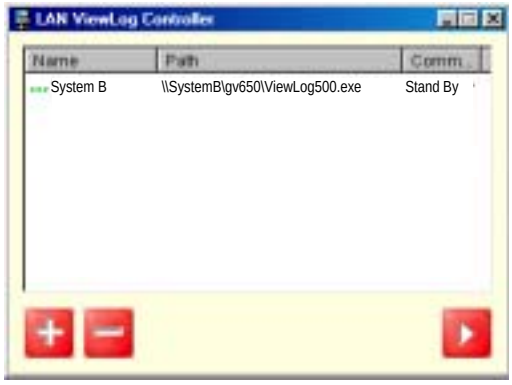
Step Three: Add System B to the System A's LAN ViewLog Controller panel.

Click on the [Add] button in System A's ViewLog Controller panel, then the following dialog box should appear. Click on the [Browse] button to locate System B's "ViewLog500.exe", then click on the [Detect] button (ViewLog500.exe is within System B's shared folder you specified in Step One.). This will uploads System B's data files to System A's ViewLog application. Now click on the [Add] button to add System B to System A's LAN ViewLog Controller panel.



Step Four: Playback System B's video file in System A

System B is now listed under System A's LAN ViewLog Controller panel. Highlight System B from the list then click the [Play] button and you will be able to playback System B's video files by using System A's ViewLog application. You can repeat the above steps to add System C and System D to the list.



4.3 View Log Fast Key References

Esc
F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12
Print Scroll Pause
~ 1 2 3 4 5 6 7 8 9 0 . = ←Back
Tab Q W E R T Y U I O P [ ]
Caps A S D F G H J K L ; ' Enter
Shift Z X C V B N M < > ? Shift \
Ctrl Alt Space Bar Alt Ctrl
Insert Home Page UP
Delete End Page Down
↑
← ↓ →
Num / * -
7 8 9 +
4 5 6
1 2 3 Enter
0 .

Esc	Exit
Enter	Play / Pause
Space	Stop
Num 1 ~ 9□0 and F1 ~ F6	Zoom in camera window
F7	Multi / Single Channel Switch
F8	Display / Hide Event Time Range
F9	Display / Hide Event Panel
→	Scroll Right
←	Scroll Left
↑	Scroll Up
↓	Scroll Down
Page Up	Previous Frame
Page Down	Next Frame
Home	First Frame
End	Last Frame
□	Zoom In
□	Zoom Out
□	Increase playback speed
□	Decrease playback speed

CHAPTER 5

Remote PlayBack System

The Remote PlayBack System (RPB system) allows you to playback GV-System's video event from a remote workstation through TCP/IP connections. The RPB system is consisting of two components: the RPB server and the RPB workstation. Each RPB server will handles up to 16 RPB workstations login at the same time, and each RPB workstation will be able to playback 32 channels simultaneously.

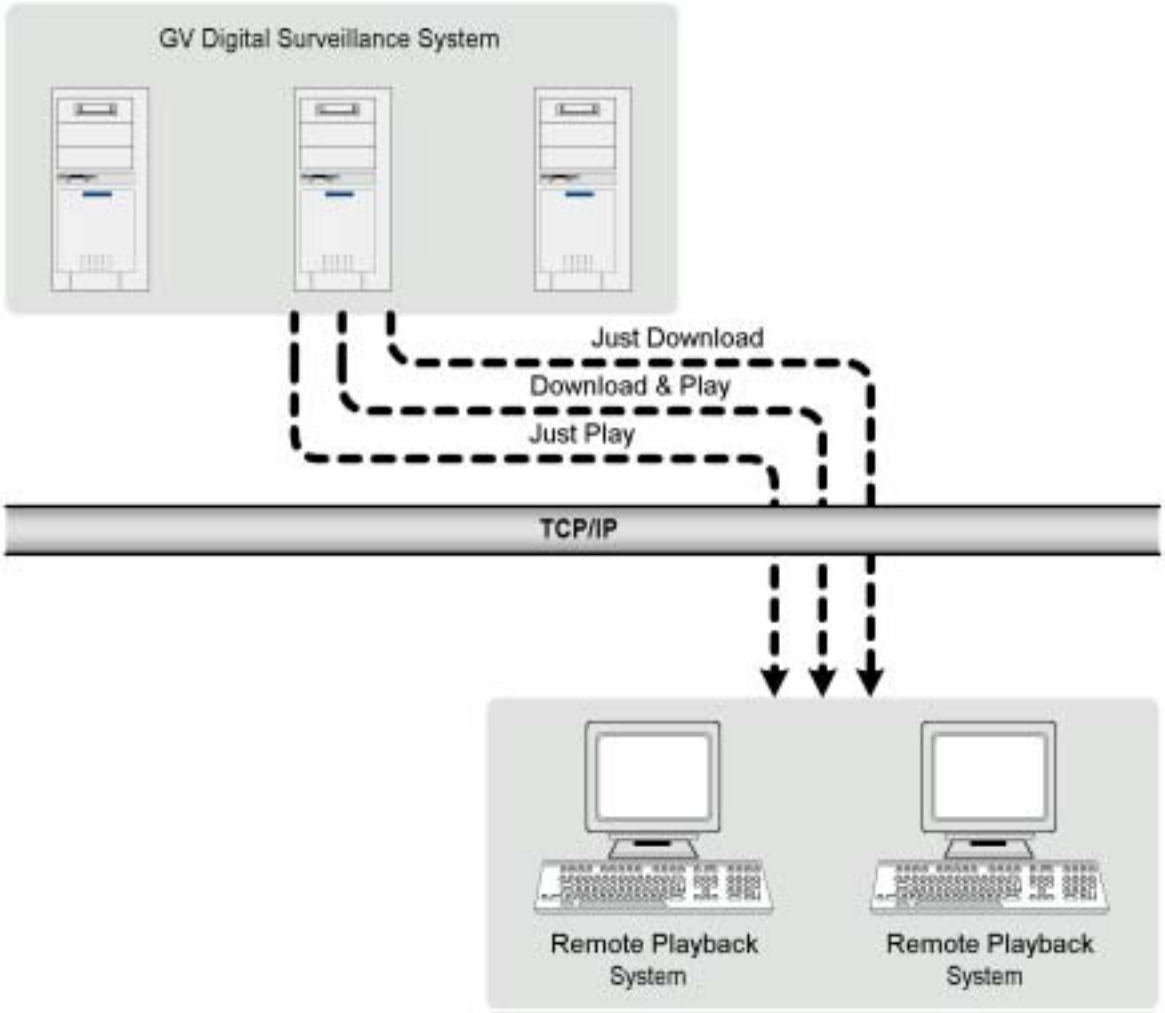


Figure 5-1: Remote PlayBack System Concept

5.1 RPB Setup and Installation

Before you can run RPB functions in GV-System both RPB application and RPB server should be properly setup and installed first. This section will explain the detail on how to setup RPB workstation and to establish its connection to the GV-System.

5.1.1 Install RPB Application

The RPB application is included in your GV-System CD-ROM. This Application should be installed in a separated PC with TCP/IP network access. Please make sure your PC meets the minimum system requirement indicated below before proceeding to the installation.

System Requirement

OS:	Win 98SE, ME, 2000, XP
CPU:	Pentium 500 (minimum)
Memory:	128 MB RAM
Hard Disk:	20 GB (minimum)
VGA:	NVIDIA GeForce II 32MB at 800 x 600 resolution (minimum)
Network:	TCP/IP

Installation

1. Insert GV-System CD into the CD-ROM drive of the remote workstation and run Setup.exe in the CD-ROM root directory.

2. In the setup dialog box select “Remote Playback. Client Site” and click [Next].

Figure 5-2: Setup dialog box

3. Click [Browse] if you wish to specify another destination directory otherwise click [Next] and follow the rest of the instruction to complete the installation.

5.1.2 Start and Stop RPB Server

The GV-System's RPB server must first be activated before a RPB workstation can login to the system. Only authorized users can access to the functions and controls of RPB server. To assign an authorized user accounts please refer to chapter 3's password setup for detail.

1. Click RPBsvr.exe in the GV-System directory and the following window will appear.

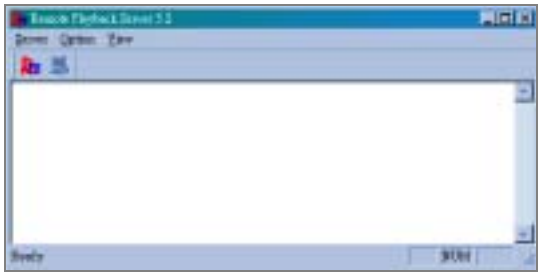


Figure 5-3: RPB Server window

2. Click the [RPB Connect] button and the following dialog box will appear, input an authorized user's ID and password in the user login window, then click [OK] to establish connection to the network.

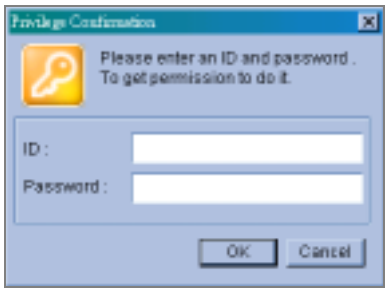


Figure 5-4: User Login

3. The RPB server in your GV-System is now connected to the network. A connection record will appear in the RPB server window indicating its current connecting status.

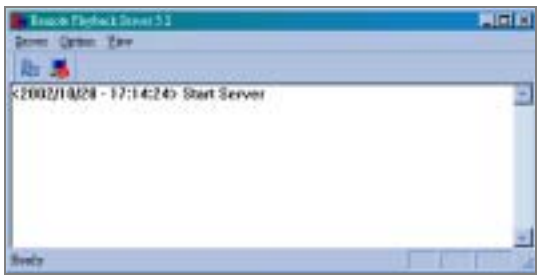


Figure 5-5: Login successful

4. To stop RPB server simply click the [End Connection] button. The system will again ask you for authorized user's ID and passwords. Input the correct information and click [OK] to disconnect it from the network.

5.1.3 RPB Server Setup

There are various tools and options available for you to customize your RPB server. Click the [Option] button from the RPB menu bar then select [Setup]. The system will ask you for a valid ID and passwords. Input proper information and the RPB setup window will appear.

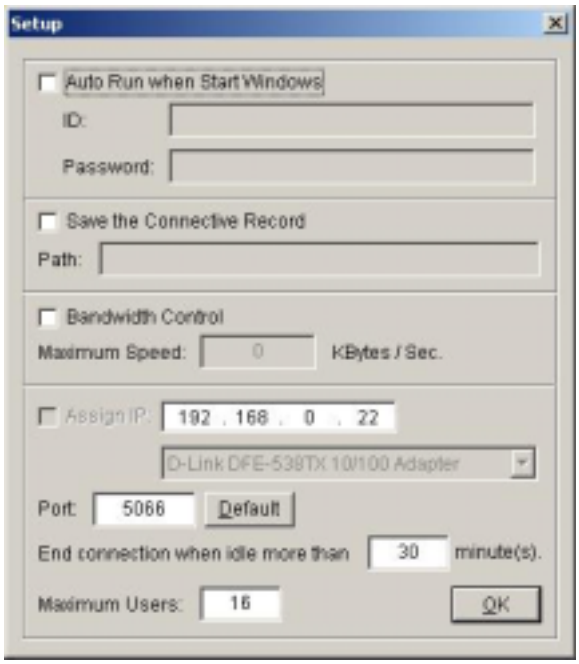


Figure 5-6: RPB setup window

Auto Run When Start Windows
Enable this option to auto run RPB server when startup Windows. Input an authorized user account in ID and Password column.

Save the Connective Record
This option allows you to keep records on whom and when has login to the RPB Server. You can specify a folder in the file path to keep these login records.

Bandwidth Control
This option allows you to control the network transmission bandwidth of your RPB server. Adjustable range is from 0 to 1,000 kbytes/sec.

Assign IP
The RPB server will automatically detect your GV-System's current IP and display it in the IP address column next to [Assign IP] option. If your GV-System is equipped with two network card each using its own IP address, then you can enable the [Assign IP] option and select which network card to be used in the drop down list.

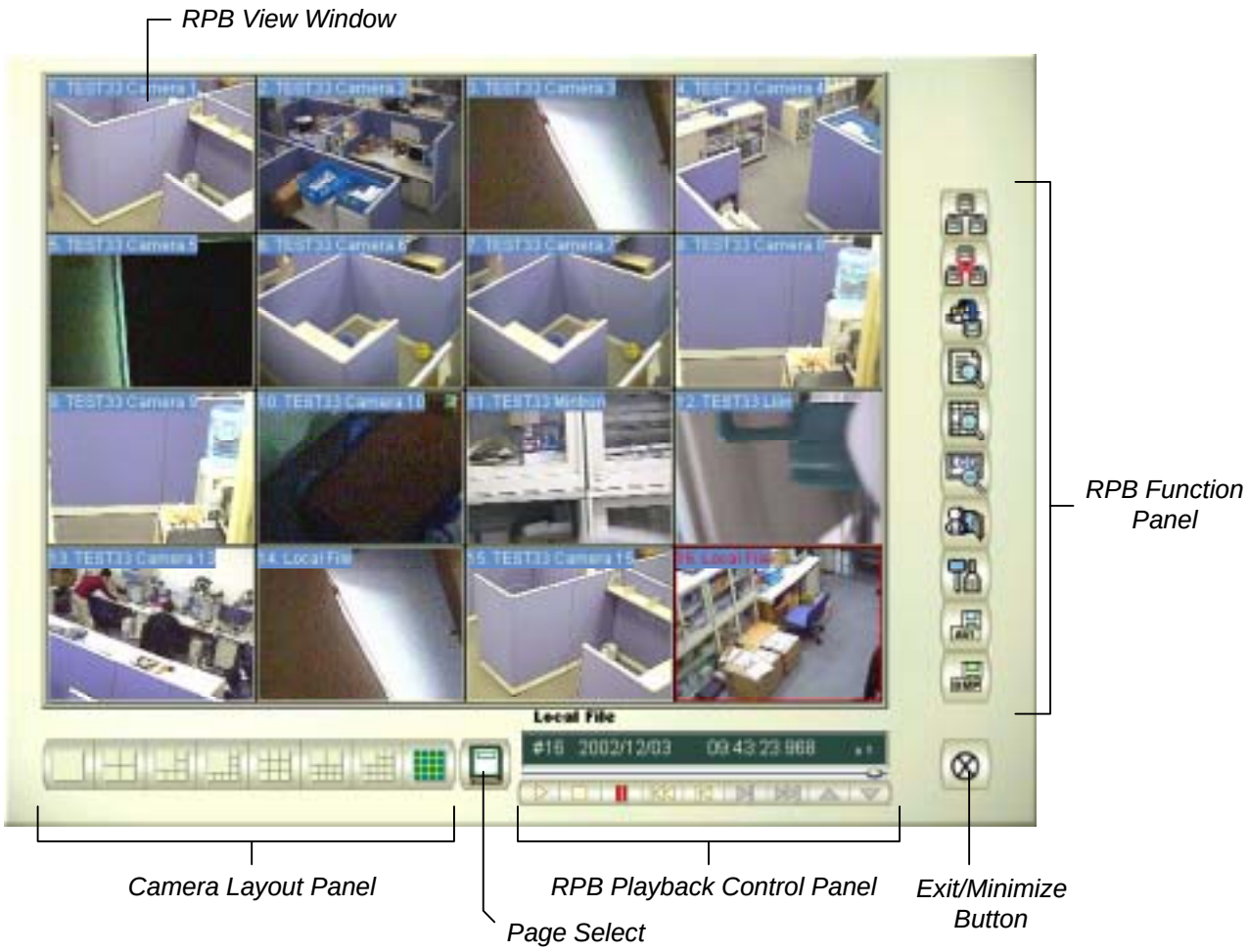
Port
You can specify which port you like to use for RPB server, the default is "5066".

Close Connection When Idle
Enable this option if you wish to terminate the connection of a login RPB workstation that has been idle for a long period of time.

Maximum Users
You can limit the number of workstations allowed to login to RPB server at a time. The maximum numbers allow is 16 workstations.

5.2 Functions and Features of RPB Application

This section will describe the RPB application's major function and features. To start RPB application, click RemotePlayBack.exe in your workstation and the following screen will appear.



5.2.1 Main Screen Functions

This section will explain the major functions and tools of the RPB main screen. The RPB Function Panel and RPB Playback Control Panel will be explained in 5.2.2 and 5.2.3.

Camera Layout Panel
The camera layout panel allows you to choose from 8 different display layout options.

Page Select
You may choose to go to previous page or next page.

RPB View Window
Displays your selected video event.

Exit Minimize Button
Allow you to close the RPB application or minimize it in the Window's task bar.

5.2.2 RPB Function Panel

The RPB Function Panel contains 8 major function buttons.

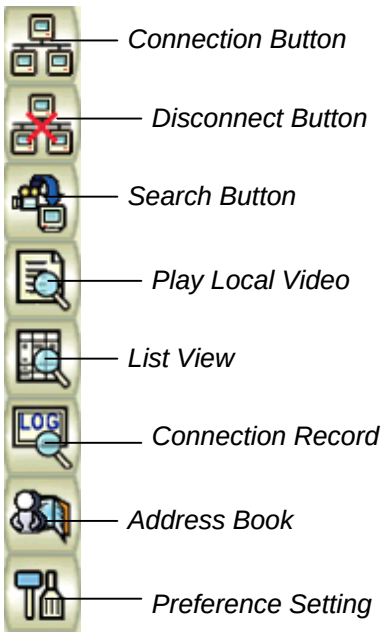


Figure 5-8: RPB Function Panel

Connection Button

Click the [Connection] Button from the function panel and the RPB login window will appear.

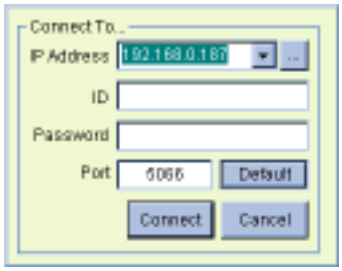


Figure 5-9: RPB login window

1. Enter the IP address or DNS of the RPB server you wish to login to.
2. Input a valid ID and password.
3. Specify the port number of the RPB server
4. Click [Connect] button to establish connection to the RPB server.

Disconnect Button

Click the [Disconnect] button and there will be two options available: Close All Connections and Select Disconnection.

Close All Connection: This will terminate all RPB server connection.

Select Disconnection: Allows you to choose which RPB server you wish to disconnect.

Search Button

There are two type of search function in RPB application, which are normal search and advance search. Click on the [Search] button and a menu will appear for you to choose between the two.

Normal Search

Select Normal Search and the Search & Download panel will appear

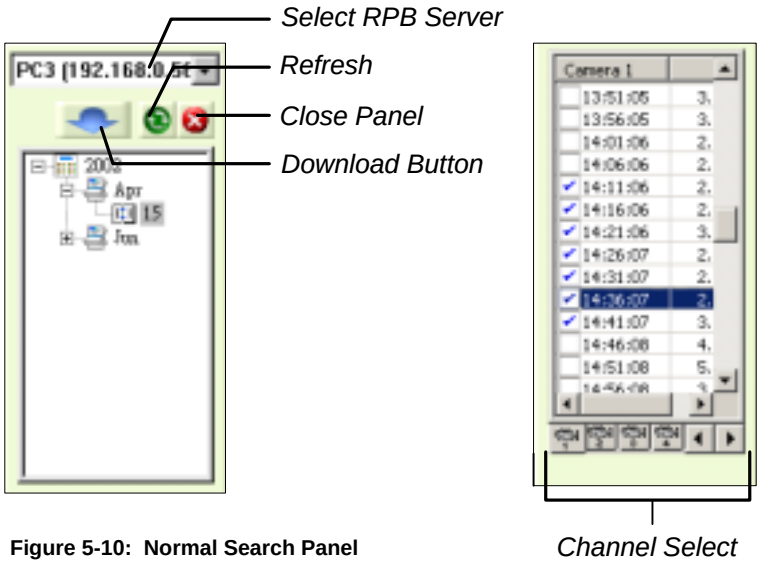
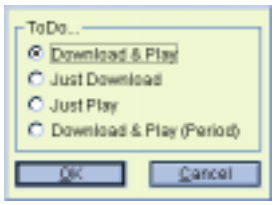


Figure 5-10: Normal Search Panel

1. Select RPB server in the drop-down list.
2. Select the date in the folder tree.
3. All video files within the selected date will be listed in the Event List Window.
4. Select the files you wish to play or download by enable its check box. You're allowed to make multiple selections. After making your selection click the [Download] button and the following window will appear.



5. There are 4 options available to play or download your selections.

   Download & Play: This option will play your selected video file and in the same time download them into the RPB workstation.

   Just Download: This option will download your selected video or audio file in the RPB workstation.

   Just Play: This option will play your selections without downloading any files to your RPB workstation.

   Download & Play (Period): This option is available when only one file is selected. It allows you to specify how many frame to download instead of downloading the complete file.

Advance Search

You can search for video file that was recorded during a specific period of time by using advance search panel's search criterias. There are 3 search criterias available: Server name, cameras, and time period.

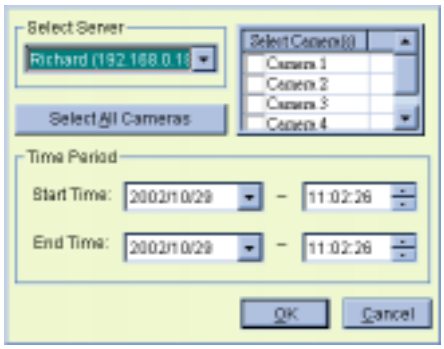


Figure 5-11: Advance search panel

1. Select server in the drop down list and all available cameras of the selected server will be listed at the right.

2. Click [Select All Camera] button if you want to download all camera's video file or select the camera you wish to download in the camera window.

3. Specify the start and end time of your search range in Time Period area and click [OK] and a window will appear with 4 options for you to choose from (see Normal Search's step 5). Make your selection and click [OK] to start the process.

Note:

1. The maximum connection channels are limited to 32 channels.

2. When the video event you choose to download is bigger than the storage path you specify then a warning message will be shown.

Play Local Video

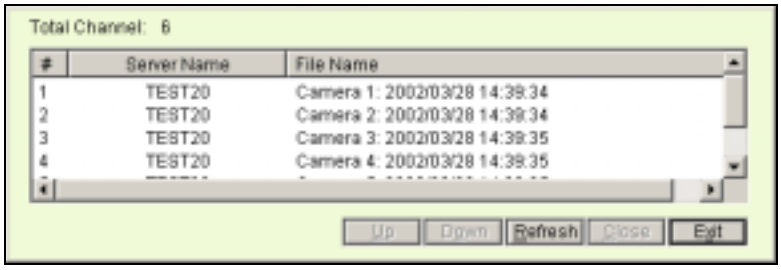
Click on the [Play Local Video] button and you will be able to play a downloaded file from the RPB workstation's local file path.

List View

The List View provides 3 options, which are Channel List, Connect List, and Download List.

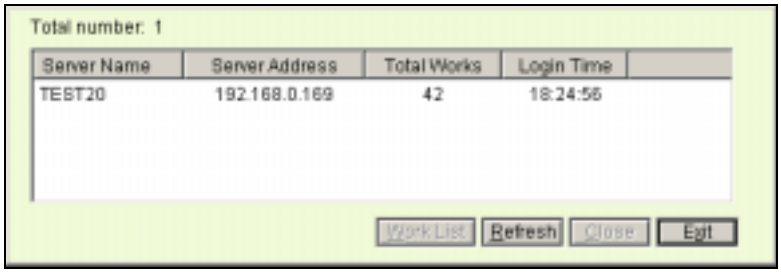
Channel List

The Channel List will list out all channels that are currently playing or displaying a video file. The first field of the list indicates the channel number, the second field indicates the server's name, and the last field indicates the file name of the video event. You can use the [Up] and [Down] button to move files from channel to channel.



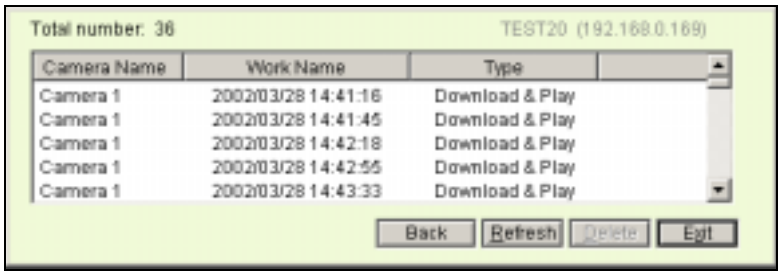
Connect List

Allows you to see which RPB server you are currently connected. The first field indicates the Server's name, the second field indicates the server's IP address, the third field indicates the number of task your workstation is performing with the server, and the last field indicates the server login time.



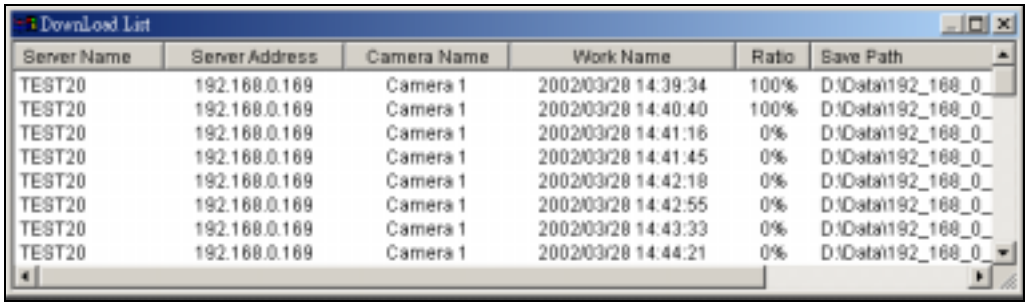
Work List

Click on Connect List's [Work List] button and the following window will appear. The Work List show you the task detail of your RPB workstation. You can click the [Back] button to return to Connection List window.



Download History

The Download History displays the current download status of your RPB workstation. The Ratio field shows you each file's download progress and the Save Path field shows you the location your file downloads to. User can now playback downloaded files directly by double clicking the file from the download history.



Connection Record

There are 3 functions under [Connection Record] button, which are "Save Connective Status", "Load Connective Status", and "Load Resume File".

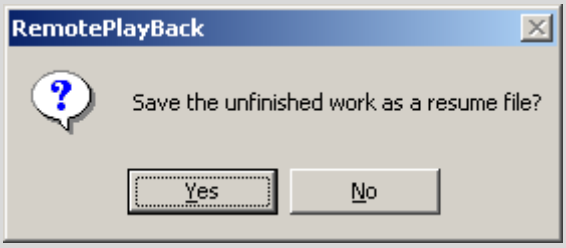
Save Connective Status: This function will save your current connection status in your RPB workstation.

Load Connective Status: Allow you to load Save Connective Status from the workstation.

Load Resume File: Allow you to load interrupted download file that was save as * .rsm (resume) file.

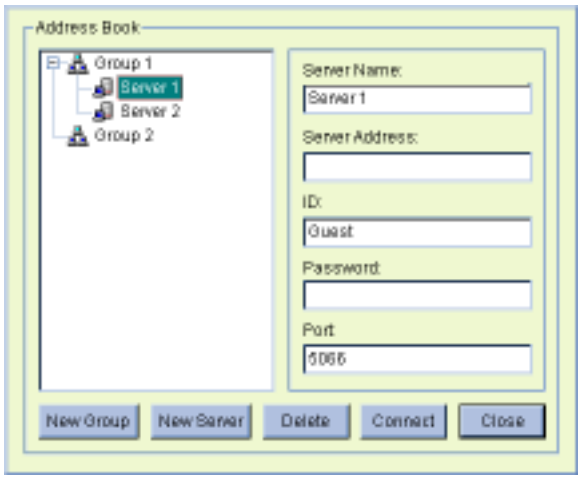
Note:

1. When you interrupt a download file, a message will pop-up asking whether you want to save the unfinished work as * .rsm (resume) file.



Address Book

The address book allows you to create various RPB server profile. The RPB server profile contains all information necessary for a automatic login.



Create new group:
Click [New Group] button to create a new group in your Address Book. Give a name for your new group in the group profile text column. A group should contain a numbers of RPB servers.

Create new server:
Click [New Server] button to create a new server. You can categorize various servers under one group. You can do this by selecting a group from the address book then click [New Server] button. The new server will be created under the selected group.

Define new server:
When creating a new server, you will need to define new server's profile by key in its information. There are total 5 fields in the server profile, which are…

Server Name: Enter a name for the new RPB server.

Server Address: Enter the RPB server's IP address.

ID: Enter an authorized user's ID.

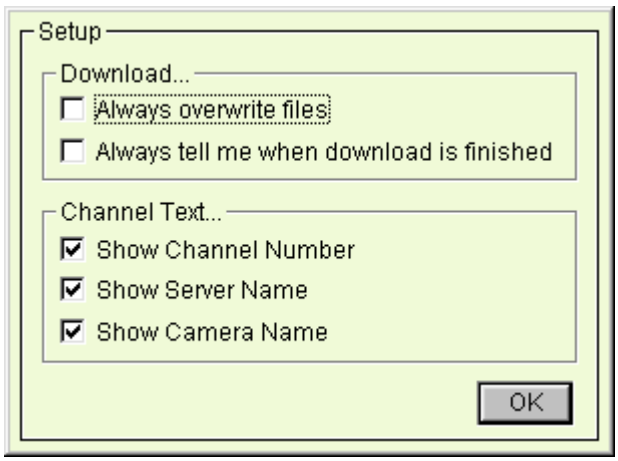
Passwords: Enter the authorized user's passwords.

Port: Specify a network port for your server.

Delete group or server:
Select a group or server from the Address Book and click [Delete] button to remove it from the Address Book.

Login to server:
Select a RPB server from the Address Book and click [Connect] button and your workstation will login to the selected RPB server immediately. You can repeat this operation to login to multiple servers at the same time.

Preference Setting



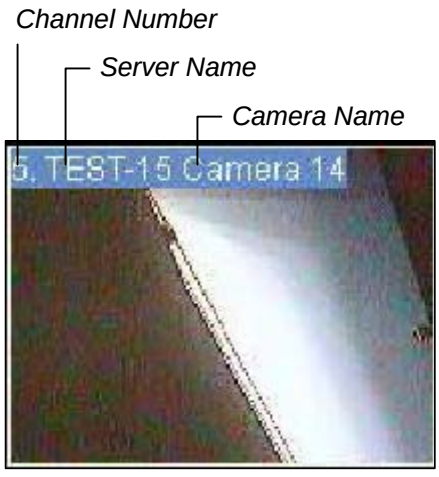
[Download]

Always overwrite files: If this option is selected then the next time you are downloading a file that already exit in the RPB workstation, the system will simply overwrite it without warning messages.

Always tell me when download is finished: If this option is selected then when downloads are completed, the system will notify you with a *"finish download"* message.

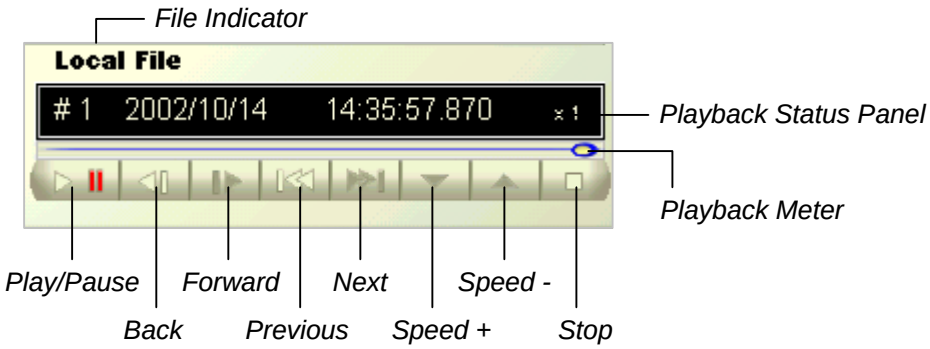
[Channel Text]

Select the information to be displayed in the RPB view window.



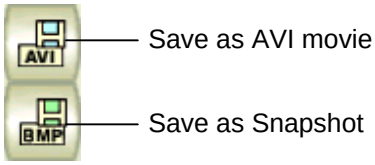
5.2.3 RPB Playback Control Panel

The Playback Control Panel allows you to controls the playback of downloaded files or play files. This panel includes the common playback buttons, a playback meter, and the playback status panel. The playback meter indicates the play progress and allows you to move forward and backward during the playback by using its scroll bar. The Playback Status Panel displays the channel number, date/time of the recorded file, and the playback speed.



5.2.4 Saving a Snapshot or AVI movie

The RPB application allows you to save a snapshot of the video in * .bmp format or a complete video event in * .avi format.



Save as AVI movie

You can convert a complete video event into AVI movie so others can play it on other computers equipped with AVI player, e.g. Windows Media Player, Real Player. Select a downloaded file from the workstation and click the [AVI] button. Specify where you want to save your movie and click [Save].

Save as Snapshot

To capture a snapshot simply click pause while playing a video, and then click on the [Snapshot] button. Specify where you want to save your image and then click [Save].

CHAPTER 6

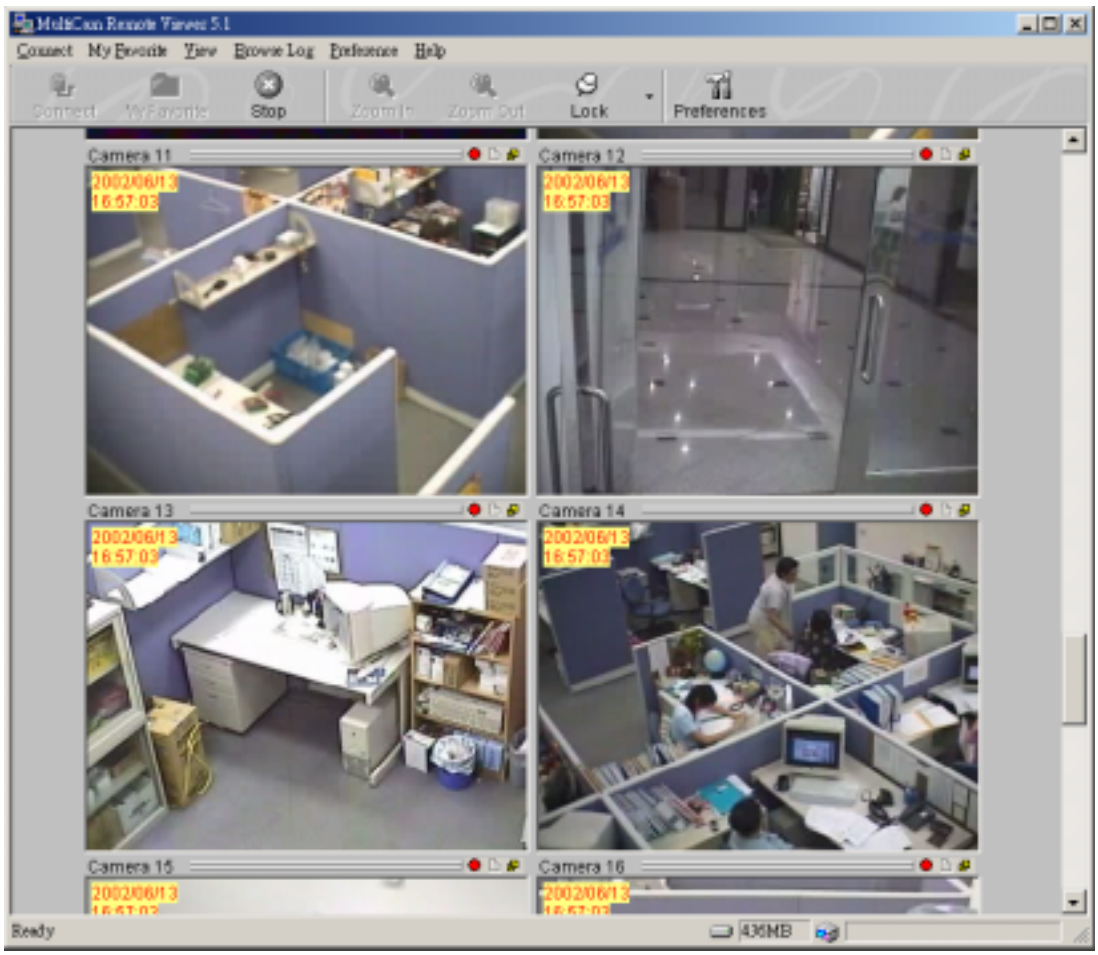
Remote Monitoring System

The GV-System offers 3 types of remote monitoring applications. Each remote monitoring application serves a different type of functions and features.

Remote-View System

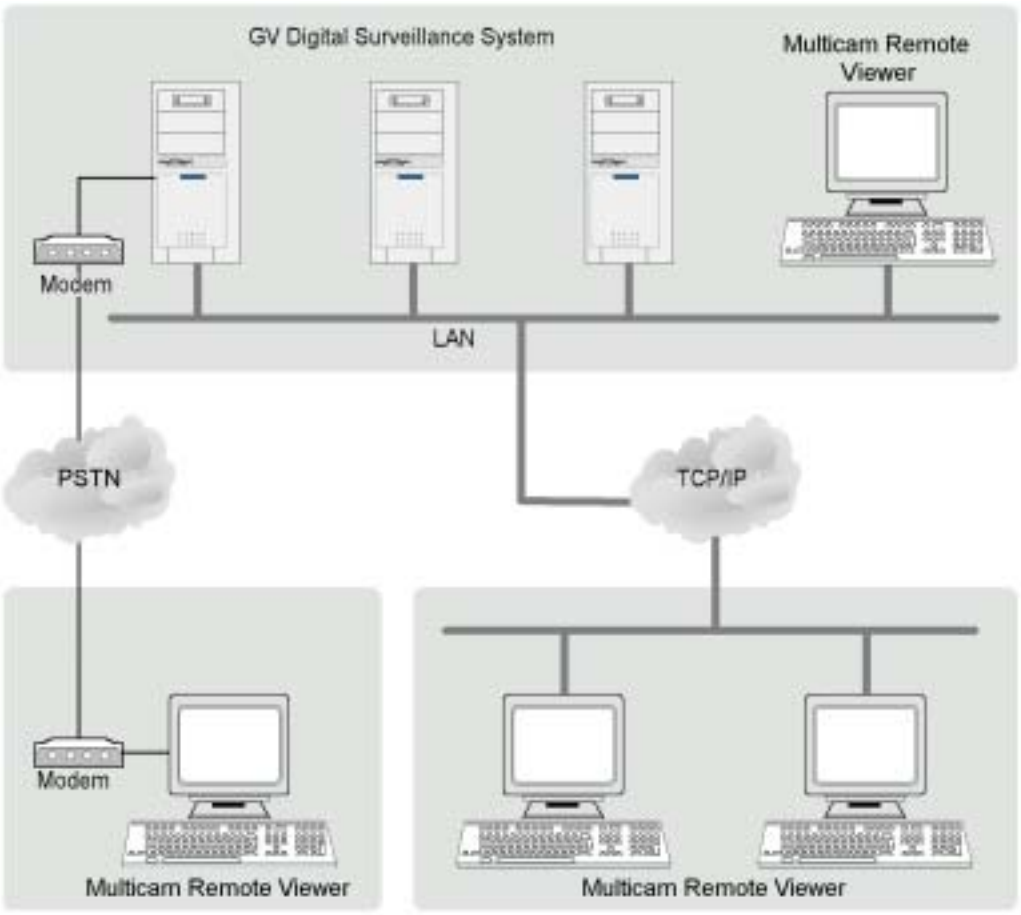
IP Multicast System

GeoCenter System



6.1 Remote-View System

The Remote-View System is a Windows-based software running on a separated PC workstation. This software application is used for monitoring live videos from your GV-System through modem dial-up or TCP/IP connection. Each Remote-View System can login to one GV-System at a time. However, you can run multiple applications in one workstation with each login to a different GV-System.



6.1.1 Remote-View System Installation

The Remote-View System is included in your GV-System CD-ROM. This Application should be installed in a separated PC with modem dial-up or TCP/IP network access. Please make sure your PC meets the minimum system requirement indicated below before proceeding to the installation.

System Requirement

OS:	Win 98SE, ME, 2000, XP
CPU:	Pentium 500 (minimum)
Memory:	128 MB RAM
Hard Disk:	20 GB (minimum)
VGA:	NVIDIA GeForce II 32MB at 800 x 600 resolution (minimum)
Network:	TCP/IP, Modem Dial-Up

Installation

1. Insert GV-System CD into the CD-ROM drive of the remote workstation and run Setup.exe in the CD-ROM root directory.
2. In the setup dialog box select “GeoVision Remote View” and click [Next].

Figure 6-2: Setup dialog box

3. Click [Browse] if you wish to specify another destination directory otherwise click [Next] and follow the rest of the instruction to complete the installation.

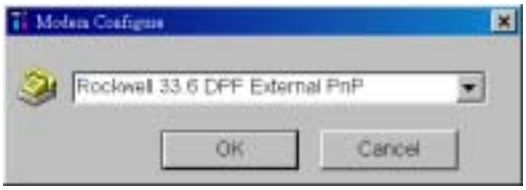
6.1.2 Setup Remote-View System

Modem Connection Setup

Please make sure that both remote view workstation and GV-System has modems installed properly. The GV-System will only supports external modems, the internal modem card will not work with this setup.

1. Click the [Network] button of the GV-System main screen and enable [Modem Server] from the menu.

2. Click on [Preference] then select [Configure Modem] from the sub-menu and the following window will appear. In the drop-down list select the proper modem in use.



3. Click the [Connect] button from Remote-View System's menu bar, select Dial-Modem from the submenu and the following window will appear.

4. Input the telephone number of the GV-System you wish to connect to in [Phone Dial] column. (this column will memorized 10 previously entered telephone numbers.)

5. Enter an authorized user's ID and passwords then click [Make Call] button. To login successfully the [Connect Status] column should appear with the following message…

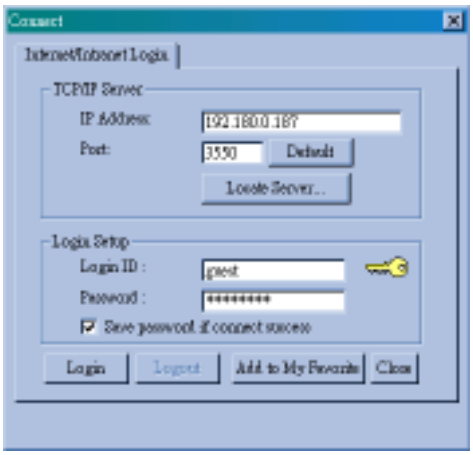
   Make Call – XXXXXX
   Line Hang Up!
   Line Reply…
   Login…

TCP/IP Connection Setup

Please make sure that both Remote-View System and GV-System are properly setup to access to TCP/IP network. The TCP/IP server in GV-System must be enabled first before proceeding to the following procedures.

1. Click the [Network] button of the GV-System main screen and enable “TCP/IP Server” from the menu.

2. Click the [Connect] button from the Remote-View System’s tool bar, select “Internet/Intranet_ TCP/IP” from the menu and the following window will appear.



3. Enter the IP address or the domain name of the GV-System you wish to connect to in the [IP Address] column and specify the port number. If you are not sure what to do in port number then please leave it as default. (The IP Address column will memorized 10 previously entered IP addresses or domain name.)

4. Enter an authorized user’s ID and passwords then click [Login] button.

5. If login successfully then you will see the GV-System’s video feeding to your Multicam Remote Viewer.

6.1.3 Function and Features of Remote-View System

The Main function of Remote-View System is for allowing you to monitor the cameras of another GV-System from a remote location. Other functions includes camera zooming, remote PTZ/IO control, and recording / playback functions.

Tool Bar Buttons

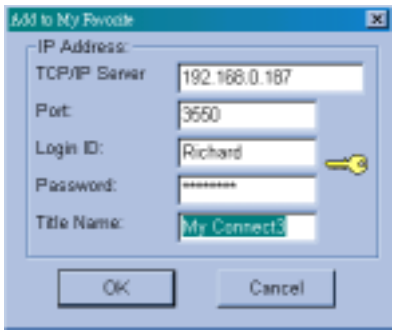
Connect	Click to select modem dial-up or TCP/IP connection
My Favorite	Click to create My Favorite list
Stop	Click to terminate network connection
Zoom In	Click to zoom-in camera
Zoom Out	Click to zoom-out camera
Lock	Click to lock a particular camera
Preferences	Click to bring up the preferences setting window.

Add Connection to My Favorite

Once you have successfully login to the GV-System by the above steps, you can add your connection to [My Favorite] list.

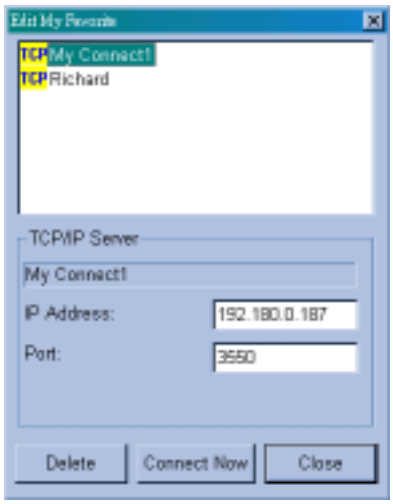
Add to My Favorite

Click [My Favorite] button from the tool bar, select “Add to My Favorite” from the sub-menu and the following window will appear. Input the proper information and specify a name for your new connection and then click the [OK] button.



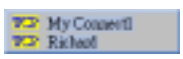
Edit My Favorite

Select “Edit my favorite” from the sub-menu and the following window will appear. Highlight the connection from the list and you will be able to change the IP address and the port number at the bottom. Click the [Delete] button if you wish to remove this connection from the My Favorite list.



Go to My Favorite

Once you have added a connection to My Favorite it will appear in the menu below. Simply select the connection from the menu and you should be able to login to your GV-System immediately.



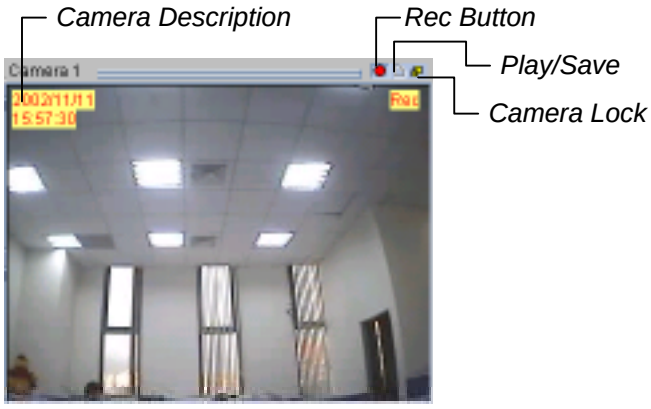
Camera Zoom Function

You can enlarge a particular camera's video image by using the zoom function buttons.

1. Click on the image of the camera you wish to zoom.
2. Click the [Lock] button from the tool bar to lock the camera.
3. Use [Zoom+] or [Zoom-] buttons to control the zoom function of the locked camera.

Camera View Window Functions

All live video will be displayed in the Remote-View System's camera view window. The camera view window contains 4 major functions, please see the following for detail.

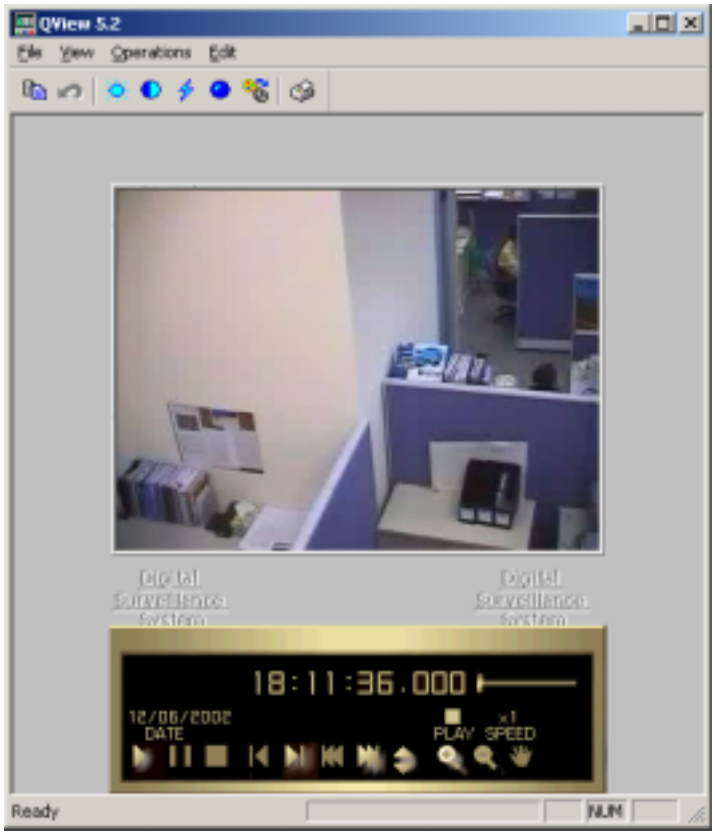


Camera Description	Shows the current date and time. The text and background color are adjustable in the Preferences setting.
Rec Button	Allow you to start, stop, pause, and resume recording.
Play / Save Button	This button serves 2 functions; it allows you to play a recorded file or to save a recorded file in AVI format.
Camera Lock	Perform same function as the [Lock] button in Camera Zoom Function.

Note:
All recorded videos will be stored in the temporarily record buffer. The "Temporarily Record Buffer" only allows one recording clips at a time. Therefore, if you wish to store the video clips permanently, you can click the [Play/Save] button from the Camera View Window, select "Save" from the menu and you will be able to save the video clip in AVI format.

Playback Video Clips in Qview

Click on the Camera View Window's [Play/Save] button and the following application will appear. The Qview's major function is for playback recorded video clips in the "Temporarily Record Buffer".



Preference Setting

Click on [Preferences] button from the Remote-View tool bar and the Preference Setting window will appear. The Preference Setting contains 2 functions, the Connection Setting and General Setting.

[Connection Setting]

Login Setup: You may specify a login user account to use when launching Remote View application.

Image Quality: Allow you to adjust the compression ratio of the video stream. Higher number results in better video quality. However, high quality video will also make the video more sluggish since the file are larger and requires more resources out of your PC.

[General Setting]

Text Display: This area let you select camera description's text color and background color. 3 options are available to present the camera description: Transparent (text only no background), Opaque (text and background), and Invisible (no text and no background).

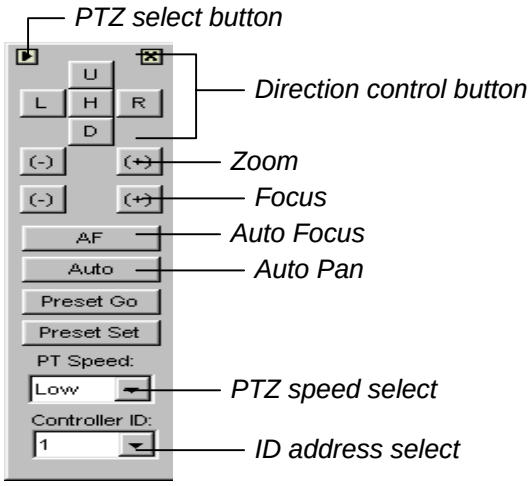
Temporary Record Buffer: This area let you specify a folder to temporarily hold your recording videos.

Remote PTZ and I/O Function

If you have installed PTZ or I/O devices on the connected GV-System, then you will be able to control these devices over TCP/IP or dial-up network.

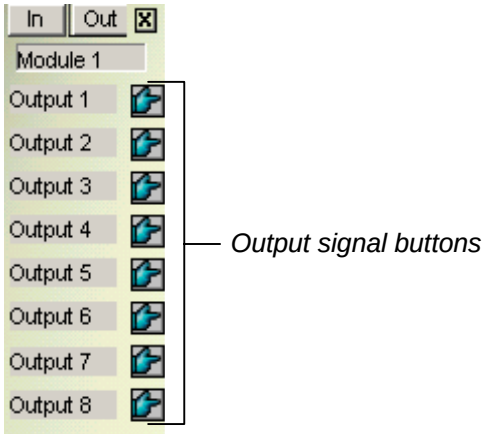
Remote PTZ control

Select [View] > [PTZ Device] from the menu bar and the PTZ control panel will appear. Use the [PTZ select] buttons to choose the type of camera you wish to control. The control panel's user interface may vary from models to models.



Remote I/O control

Select [View] > [I/O Module] from the menu bar and the I/O control panel will appear. The Remote view application allows you to control the output devices only. Click on the [Output signal] buttons to send signal to the output device.

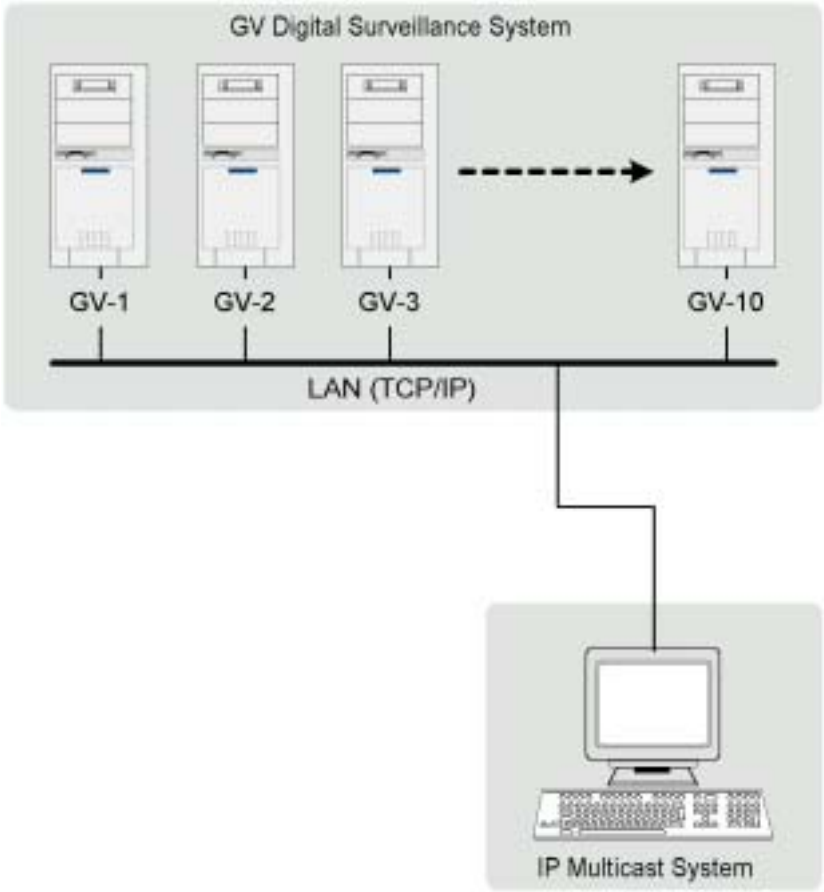


Full Screen Operation

Click [Connect] button and select “Full Screen Mode” from the menu to switch to full screen operation. The full screen mode provides a larger viewing area for the cameras. There are four functional buttons located at the right hand side that allows you to access to some of the basic functions.

6.2 IP Multicast System

The IP Multicast system is a remote viewing application that is capable of connecting up to 10 GV-System at a time. It is specifically designed for Intranet/LAN environment and does not work in Internet environment. The IP Multicast System can automatically locate all available GV-System within the same local area network by click of a button. Users are not required to input each GV-System's IP address separately. The IP Multicast System is the most ideal application if you wish to monitor multiple GV-System simultaneously in a local area network.



6.2.1 IP Multicast System Installation and Setup

The IP Multicast application is included in your GV-System CD-ROM. This Application should be installed in a separated PC with TCP/IP network access. Please make sure your PC meets the minimum system requirement indicated below before proceeding to the installation.

System Requirement

OS:	Win 98SE, ME, 2000, XP
CPU:	Pentium 500 (minimum)
Memory:	128 MB RAM
Hard Disk:	20 GB (minimum)
VGA:	NVIDIA GeForce II 32MB at 800 x 600 resolution (minimum)
Network:	TCP/IP, Intranet/LAN environment only

Installation

1. Insert GV-System CD into the CD-ROM drive of the remote workstation and run Setup.exe in the CD-ROM root directory.
2. In the setup dialog box select “GeoVision IP Multicast” and click [Next].

3. Click [Browse] if you wish to specify another destination directory otherwise click [Next] and follow the rest of the instruction to complete the installation.

6.2.2 Start and Stop IP Multicast System

Please make sure that all GV-System and the IP Multicast workstation are properly setup in a local TCP/IP network environment. The “Multicast Server” in GV-System must be enabled first before proceeding to the following procedures.

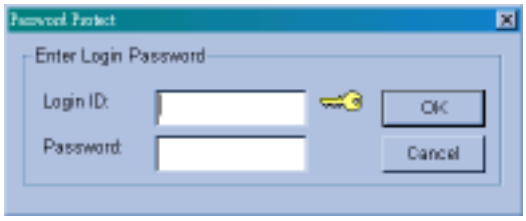
1. In GV-System’s main screen, click the [Network] button and enable “Multicast Server” from the menu. If you are trying to connect multiple GV-System at the same time then make sure to enable all GV-System’s Multicast Server separately.

2. Go to [Start] > [Program] > [Multicam] > [IP MultiCast System] and run IP Multicast application in your workstation.

3. Click the [Search] button from the tool bar and the IP Multicast System will automatically locate all available GV-System within your local area network.

4. All GV-System available for viewing will be listed in the live channel frame on the left side of the IP Multicast screen.

5. Click on the live bar to select the GV-System you wish to monitor and the password dialog box will appear. Input a valid user’s ID and passwords then click [OK].



6. Live video of the selected GV-System will be displayed in the camera view area on the right.

7. To end the connection simply click the [Stop] button from the tool bar and the connection to the selected GV-System will be terminated.

6.2.3 Function and Features of IP Multicast System

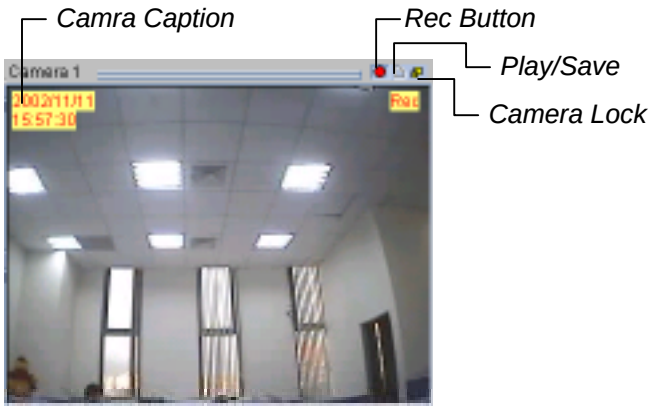
Tool Bar Buttons

Search	Click to locate all available GV-System within the LAN.
Back	Click to move back to the previous live channel
Forward	Click to move forward to the next live channel
Go To	Click to select a specific live channel
Stop	Click to end the network connection
Lock Camera	Click to lock a particular camera
Live Channel	Click to show or hide live channel frame.

Live Channel Frame

Live Bar	Click to select the GV-System you wish to view
	Indicates the number of camera available in each GV-System.
	Indicates each GV-System's connection status. Green flag means connected, while red flag means disconnected.
Channel	Display each live channel in sequence
Server IP Port	Displays the IP address of the connected GV-Systems

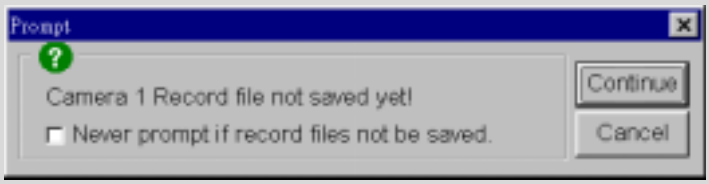
Camera View Window



Camera Caption	Displays the current date and time of the camera
Rec Button	The recording button serves 4 functions: start recording, stop recording, pause, and resume recording.
Play / Save	Click to play last recording or to save it as * avi file
Camera Lock	Click to lock a particular camera

Note:

The IP Multicast System's recording file will be stored in a "Temporary Record Buffer". This buffer can only store one file at a time. If you try to record a second file then the following message will appear to notify you that your first file is not save yet. If you click [Continue] then the first file will be over write by the second file. To avoid overwrite click on the [Play/Save] button from the camera view window, select [Save] from the menu and you will be able to save your recording as * avi files.



Play and Save Video Clips

The Camera View Window's play/save button serves two functions.

Play Recorded Files

Click on the [Play/Save] button; choose [Play] from the submenu and the Qview application will be launched.

Save Recorded Video Clips

All recording video clips are save in the "temporarily record buffer" folder. These recorded clips will be lost after you close the GeoCenter application. To permanently save the video clips in your Center workstation click the [Play/Save] button, choose [Save] from the submenu and you will be able to save in the files as Avi format within your Center workstation.

Preference Setting

Select [Preference] from the menu bar and the following window will appear.

[Text Display]: Let you select camera caption's text color and background color. 3 options are available to present the camera caption: Transparent (text only no background), Opaque (text and background), and Invisible (no text and no background).

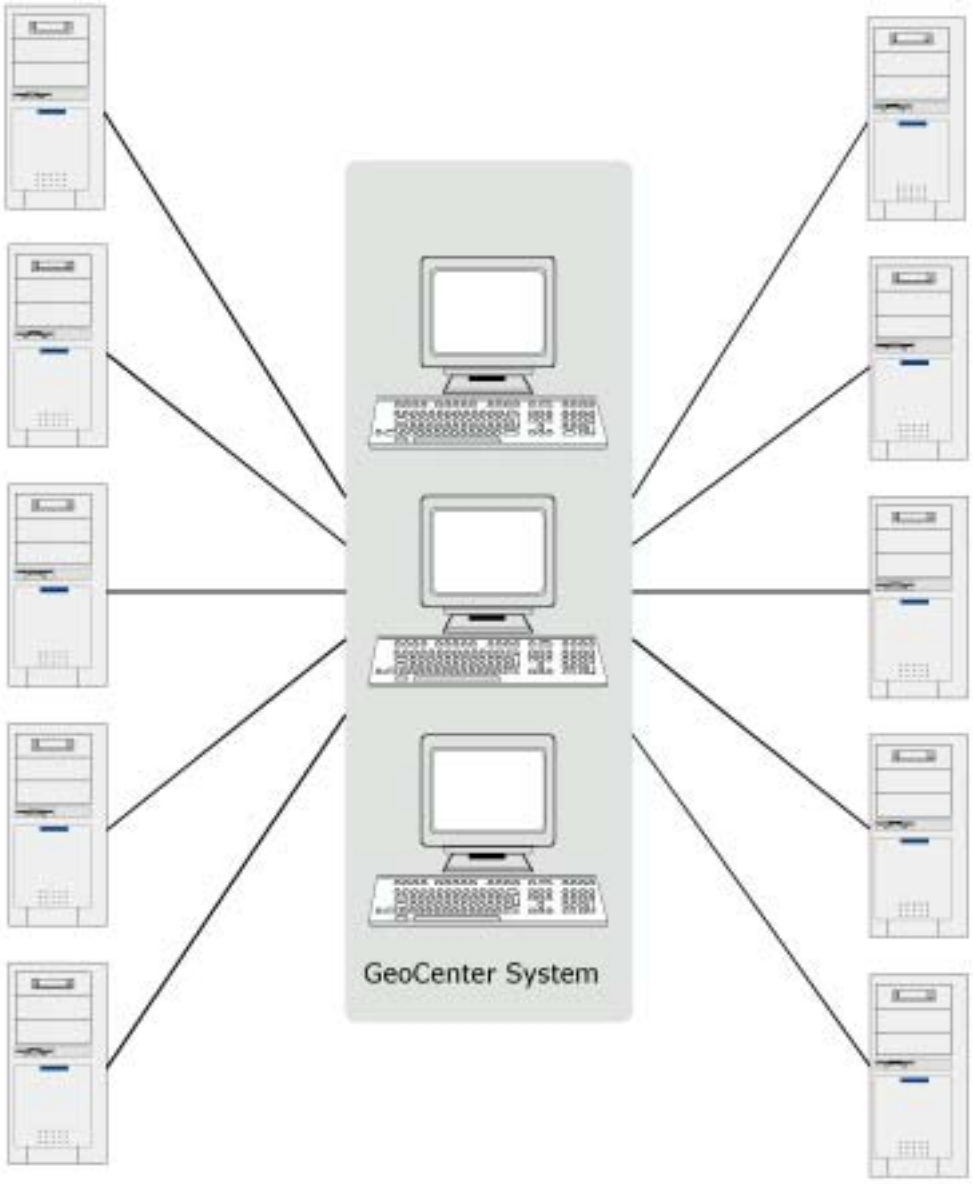
[Temporary Record Buffer]: Let you specify a folder to hold your recording videos.

Full Screen Operation

Click [Channel] and select [Full Screen Mode] from the menu bar to switch to full screen operation. The full screen mode provides a larger viewing area for the cameras. There are four functional buttons located at the right hand side that allows you to access to some of the basic functions.

6.3 GeoCenter

The GeoCenter may be considered as a central surveillance station for the GV-Systems. With GeoCenter, you can automatically receive video images or clips from multiple GV-Systems of different areas when intrusion occurs. The connection time is less than 1 second on Intranet environment.



Center can be applied in the Internet/WAN or Intranet/LAN environment, but you need a FIX IP at where Center is installed. One Center can serve 10 GV- Systems at one time, and you can daisy chain multiple Center in a local area network. If video images are received from the 11th system, it will automatically transfer to the next available Center.

Because Center is based on TCP/IP protocol, you must have TCP/IP connection at the surveillance

site. Center does not support dial-up to ISP. Since dial-up is not always reliable, it may delay the image sending.

Application 1:

You may run a GV-Series System in your office or the warehouse, and enable “Connect to Center” in GV-Series System from the network option when off-duty. Select also connect to Center. If intrusion occurs after you leave the office or the warehouse, you will receive real-time video image from Center and make necessary response. All video images sent to Center will be recorded at remote site for reference.

Application 2:

You may join your system to a Center, like the way you join a security service, except Center allows you to SEE intrusion, not only alarm flash or siren only. It is a good way to eliminate false alarm.

6.3.1 GeoCenter Installation and Setup

The GeoCenter application is included in your GV-System CD-ROM. This Application should be installed in a separated PC with TCP/IP network access. Please make sure your PC meets the minimum system requirement indicated below before proceeding to the installation.

System Requirement

OS:	Win 98SE, ME, 2000, XP
CPU:	Pentium 500 (minimum)
Memory:	128 MB RAM
Hard Disk:	20 GB (minimum)
VGA:	NVIDIA GeForce II 32MB at 800 x 600 resolution (minimum)
Network:	TCP/IP

Installation

1. Insert GV-System CD into the CD-ROM drive of the remote workstation and run Setup.exe in the CD-ROM root directory.
2. In the setup dialog box select “GeoVision GeoCenter” and click [Next].

3. Click [Browse] if you wish to specify another destination directory otherwise click [Next] and follow the rest of the instruction to complete the installation.

6.3.2 GeoCenter Setup

The setup of GeoCenter involves both the Center System PC and the GV-Systems. Center basically treats each GV-System as its customer. Therefore, before your GV-System can send images or video to the Center, it will need to enroll to Center's customer list first.

1. Lunch Center application in the PC where Center is installed.

2. Click [Customer] button from the menu bar and the following window will appear.

3. Click [Add] button to add new customer and fill out the information in the following dialog box.

4. Enable "Send to Center" option in GV-System's camera configure window. Decide how you want to send the video to center by choosing either "motion detect" or around the clock" in the drop-down list.

5. Click the [Network] button in GV-System and enable Connect to Center function and the Login Dialog window will appear.

6. Enter the IP address of Center System in [Connect Center IP] text column. Enter the login ID and passwords.

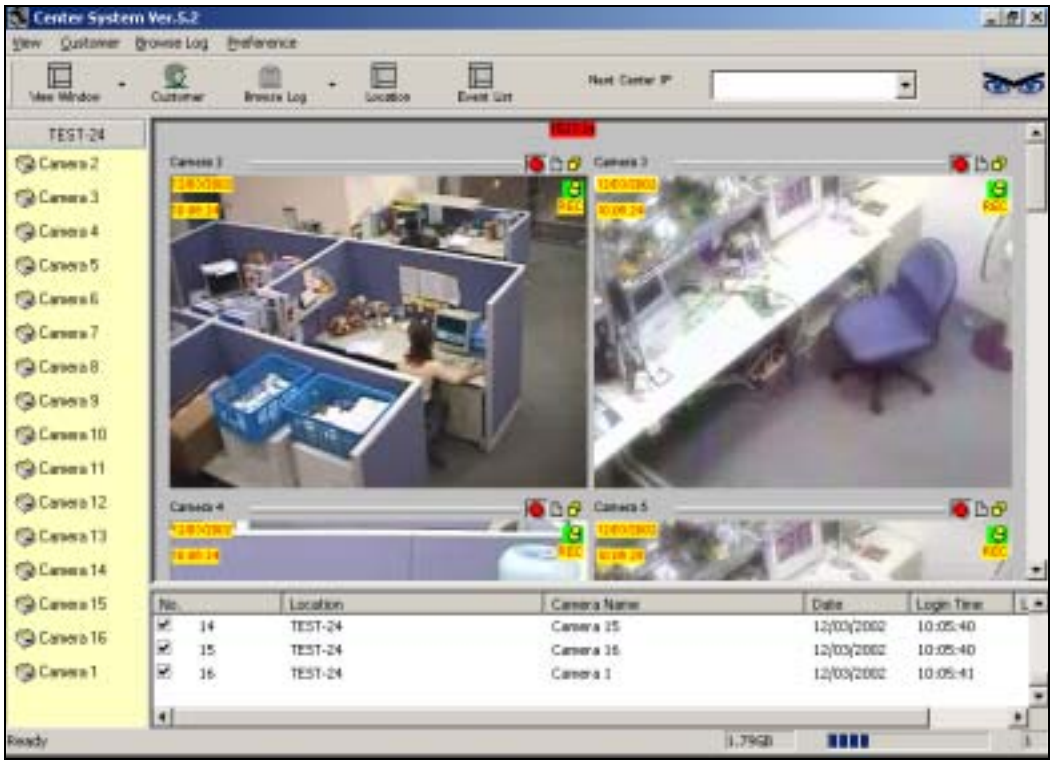
7. Select the network type that match to your Network Environment and then click [Login].

8. From the GV-System main screen click [Start/Stop Monitoring] button and enable all monitoring function.

9. If you have select [Around-the-Clock] surveillance then you will see video feeding to your Center workstation continuously. If you selected [Motion Detect] surveillance then your Center will receive videos only when motion are detected by one of the camera in the connected GV-System.

6.3.3 Function and Features of GeoCenter

Once your GeoCenter is up and running it is ready to receive video from GV-Systems. The main screen of Center application is divided into 4 parts, which are Tool Bar, View Window, Location List, and Event List.



Tool Bar Buttons

View Window	Select between [Single Location] or [Tile Horizontally]. Single location will display one GV-System at a time while Tile Horizontally will display multiple GV-System across the camera view area.
Customer	Allow you to add or delete customer file.
Browse Log	Allow you to browse for saved recording files.
Location	Click this button to show or hide location frame.
Event List	Click this button to show or hide event list
Next Center IP	Enter the next Centers IP address in the text column

View Window

All video received from the GV-System will be displayed in the view window area. The view window button from the tool bar allows you to choose between two display options, which are single location and tile horizontally. The Single Location will display one GV-System's video at a time while Tile Horizontally displays multiple GV-System and will layout each system's camera view window horizontally across the View Window area.

Location List

The Location List is located in the left frame of the Center screen. Inside the location list will be various selection bar that allows you to select between the GV-Systems that connects to your Center. If your have 10 GV-Systems connect to your Center, then there will be 10 selection bars in the Location List.

Event List

The Event List is located in the lower frame of the Center screen. It displays the login history of the connected GV-System. There are total 6 fields in the Event List, which are explained in the following.

No.: Shows the login queue sequence of the connected GV-System.

Locations: Shows the name of the login GV-System.

Camera Name: Shows the name of the camera.

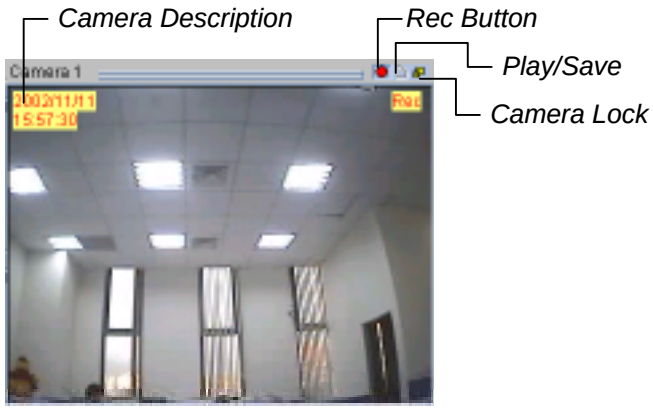
Date: Shows the connected GV-System's login date

Login Time: Shows the connected GV-System's login time.

Logout Time: Shows the connected GV-Systems logout time.

Camera View Window

All video receive from the GV-System will be display in the Camera View Window. Each Camera View Window displays one camera.



Camera Caption	Displays the current date and time of the camera
Rec Button	The recording button serves 4 functions: start recording, stop recording, pause, and resume recording.
Play / Save	Click to play last recording or to save it as * avi file
Camera Lock	Click this button to lock a particular camera. Once a camera is lock it will appear in the right area of the View Window. You can use [+] and [-] key of your keyboard to zoom-in and zoom-out the locked camera.

Note:
All recording video clips are save in the “temporarily record buffer” folder. These recorded clips will be lost after you close the GeoCenter application.

Play and Save Video Clips

The Camera View Window's play/save button serves two functions.

Play Recorded Files

Click on the [Play/Save] button; choose [Play] from the submenu and the Qview application will be launched.

Save Recorded Video Clips

All recording video clips are save in the "temporarily record buffer" folder. These recorded clips will be lost after you close the GeoCenter application. To permanently save the video clips in your Center workstation click the [Play/Save] button, choose [Save] from the submenu and you will be able to save in the files as Avi format within your Center workstation.

Preference Setting

The [Text Color] area let you select camera description's text color and background color. 3 options are available to present the camera description: Transparent (text only no background), Opaque (text and background), and Invisible (no text and no background).

[Temporary Record Buffer] let you specify a folder to temporarily hold your recording videos.

[Alarm Option] You can enable the alarm option to notify you when your center receives an image from the GV-System. The drop-down list let you select between 6 different alarm types. You can click the [Play] button to listen to the alarm.

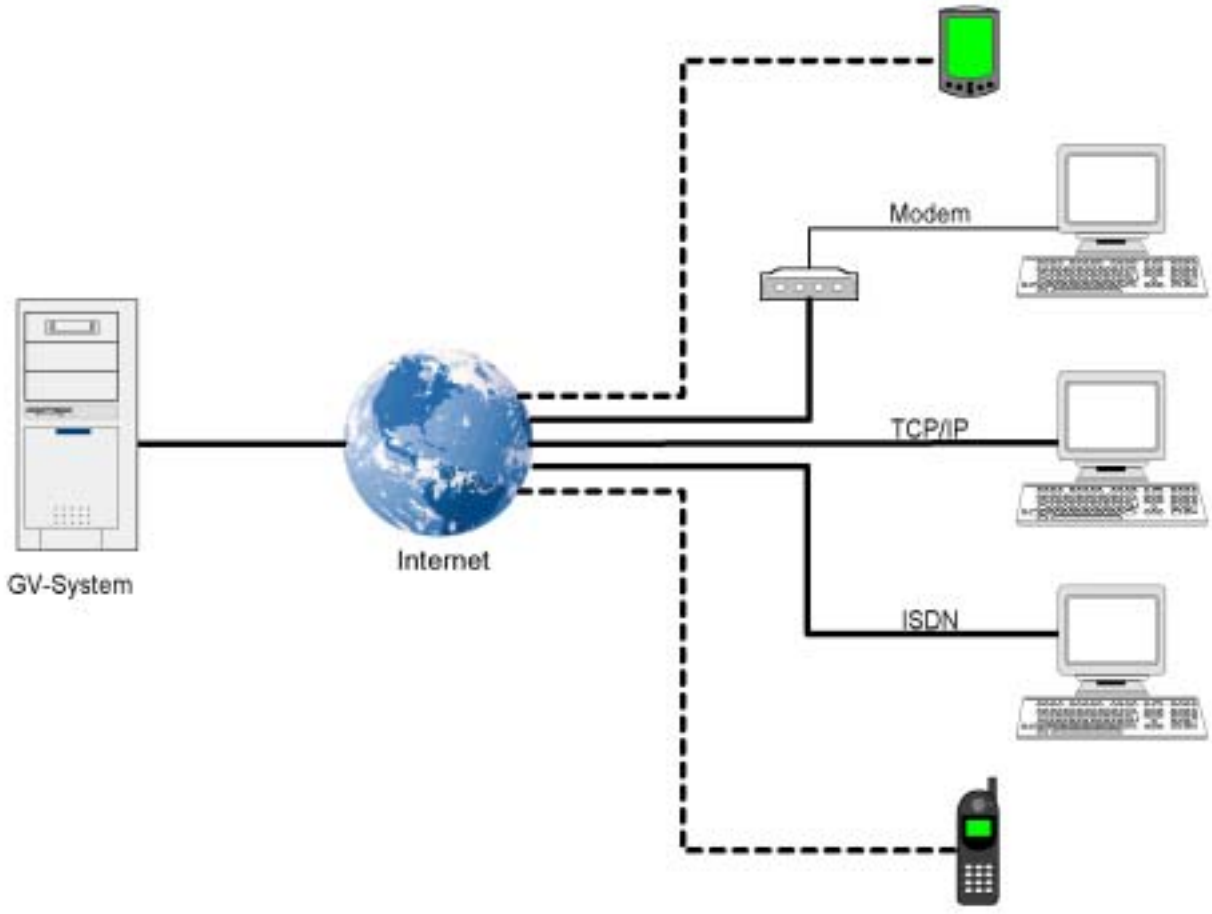
[Record Option] If auto record is enabled then Center will automatically start recording when it receives a video or image from a GV-System.

Full Screen Operation

CHAPTER 7

WebCam System

The GV-System has a built in web server which is able to deliver streaming live and recorded video over the Internet. This function is called the WebCam System, which allows users from anywhere in the world to monitor their GV-System by using PCs or mobile devices via Internet access.



7.1 WebCam Setup

The Webcam system basically run within the Internet, no additional hardware or software is required as long as your PC has Internet browser and Internet access.

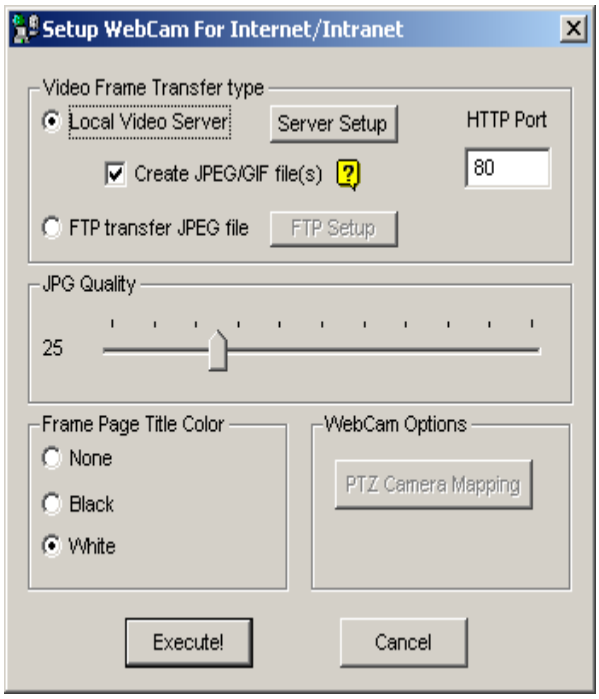
System Requirement

OS:	Win 98SE, ME, 2000, XP
Web Browser	IE6.0 / Netscape Navigator
CPU:	Pentium 500 (minimum)
Memory:	128 MB RAM
Hard Disk:	20 GB (minimum)
VGA:	NVIDIA GeForce II 32MB at 800 x 600 resolution (minimum)
Network:	TCP/IP
Connection Limit:	Win98: up to 45 client login simultaneously. Win2000: 256MB RAM = up to 132 channels simultaneously 512MB RAM = up to 145 channels simultaneously 728MB RAM = up to 174 channels simultaneously 1GB RAM = up to 178 channels simultaneously
DirectX:	Client must have Direct X 8.0 or greater.

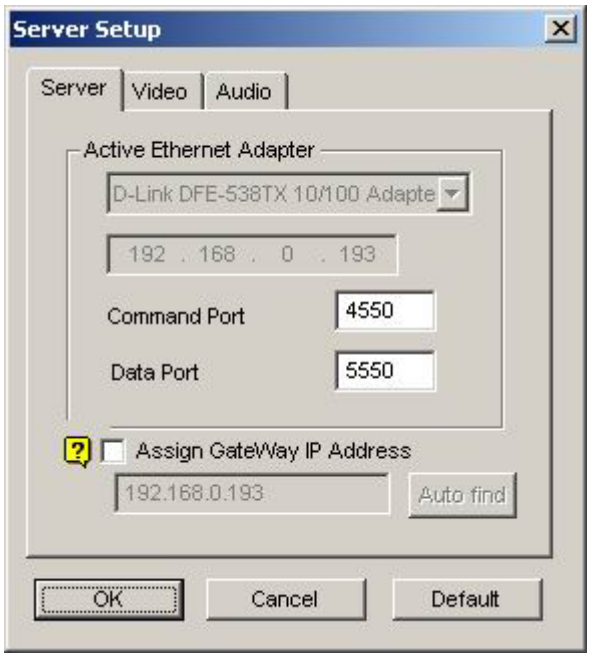
Note: If client use Windows XP or Windows Server 2003 must link http://java.sun.com/getjava/ and download Java virtual machine to enable Jpeg View.

WebCam Server Setup - Video

1. Click [Network] button from the GV-System main screen, enable “WebCam Server” from the menu and the following dialog box will appear.



2. Select [Local Video Server] then click [Server Setup] button and the following dialog box will appear.



3. In the drop down list select the network adapter for WebCam System. The system will automatically detect the IP address of your PC and display it in the column below.

4. Enter the port number for [Command Port] and [Video Data Port]. The Command port default is 4550 and Data port default is 5550.

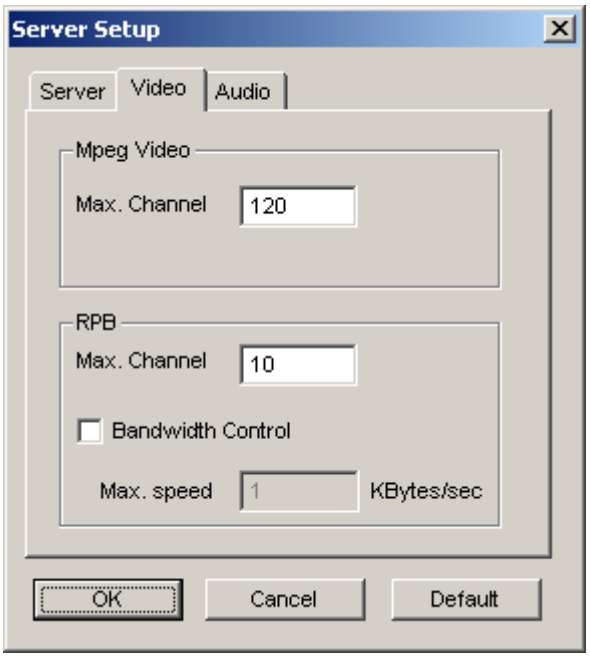
5. Enable [Assign GateWay IP Address] if your GV-System is connected to a private LAN where router is installed. Click [Auto Find] button and the system will automatically detect the IP address of your gateway computer.

Note:

If your GV-System is connected within a private network and the network's gateway computer is using a dynamic IP, then we do not recommend using WebCam's [Auto Find] function. We recommend that you register a DNS for your gateway computer. Instead of using IP address in GateWay IP Address column, input the gateway computer's DNS (i.e. geovision.no-ip.com).

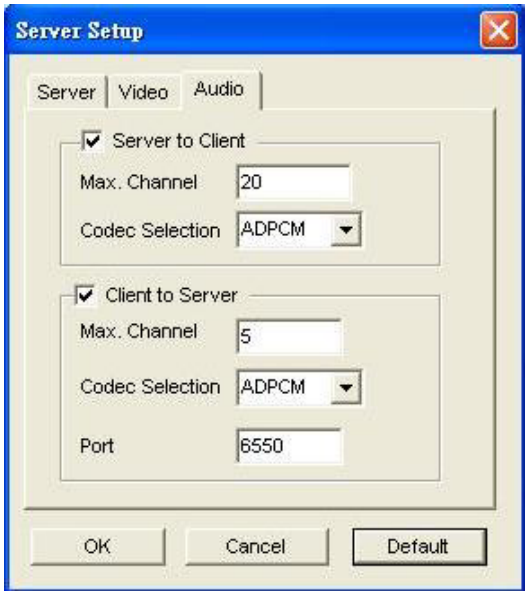
WebCam Bandwidth Control Setup

Click on the [Video] tab in the "Server Setup" dialog box to access WebCam Bandwidth Control Setup. This setup allows you to specify how many WebCam and WebCam RPB user are allowed to access to your GV-System at one time. It also allows you to control the network bandwidth for WebCam RPB software.



WebCam Server Setup - Audio

Click on the [Audio] tab in the “Server Setup” dialog box to access WebCam Audio Setup. One server can send and receive audio from a maximum of 20 clients. ADPCM and G.723.1 are two formats GV system used for transmitting the audio signal. ADPCM requires 4KBps (4,000Bps) bandwidth while G.723.1 only requires 600Bps bandwidth.

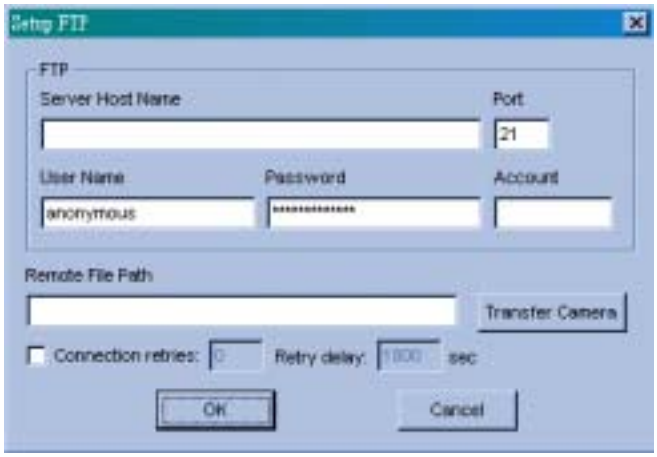


Note:

When using server to client, you have to input audio from sub-card to enable this function. When using client to server function, use port 6550 for audio port, please open port 6550 to enable client to server audio if the firewall is in use.

[FTP Server Setup]

If you wish to send the captured images to another web server or to a different location, click on [FTP Transfer file] > [FTP Setup] and the Setup FTP dialog box will appear.



Connection retries If failed in FTP upload, repeat the online number (Max 999)

Retry delay Means the seconds to be waited for the online retry (Max 9999)

[JPG Quality]

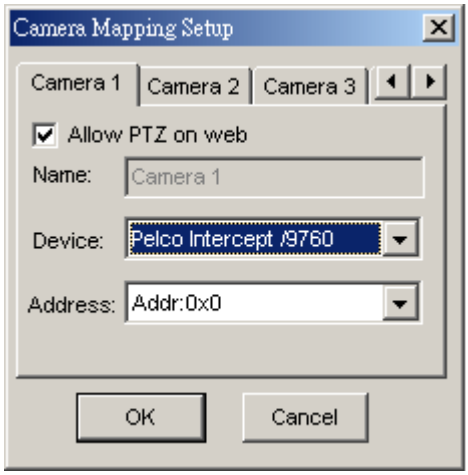
Video quality may be adjusted by moving the slide bar. The higher the value, the better the quality. Better video quality needs more storage size.

[Frame Page Title Color]

This refers to the date/time captioned on the video. It can be displayed in transparent, black or white.

[Camera Mapping Setup]

You may set up PTZ Dome corresponding to each camera and control through Browser.



6. Click [OK] button to apply your setting and [Execute] button to enable Webcam server.

7.2 Start WebCam System

After you have properly setup GV-System's Webcam server it will be ready to send video stream over the Internet. There are four functions available for Webcam System, which are Mpeg4 Encoder Viewer, JPEG Image Viewer, Remote Play Back, and Server Information. This section will explain each function in detail.

7.2.1 Mpeg4 Encoder Viewer

The Mpeg4 Encoder Viewer is the most powerful remote monitoring option in the WebCam System. It basically run within the Internet Explorer and is capable of receiving live video stream from the GV-Systems over the Internet.

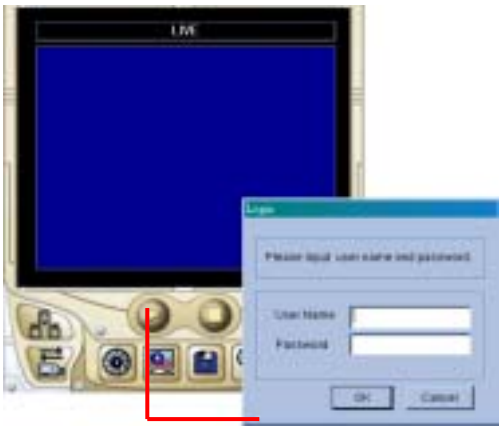
Start and Stop Mpeg4 Encoder Viewer

1. Run Internet Browser from your PC.
2. Key in GV-System's IP address in the browser's address box then press [Enter].
3. Select "Mpeg4 Encoder Viewer" and then click [Submit].

4. Select "MODEM" if you are using modem dial-up connection or "DSL/CABLE/T-1" if you are using a broadband TCP/IP connection.

5. In [Select Multi Window] area select the number of camera you wish to view in one web page then click [Submit]. Modem connection allows only one window because of the limited bandwidth. If you are using broadband Internet connection such as DSL or Cable Modem then select [DSL/CABLE/T-1] and you will be able to view up to 16 cameras at a time.

6. Click [Connect] button from the WebCam interface and the “Login” dialog box will appear. Input a valid user ID and password then click [OK]. If login successfully you will be able to view video over the Internet.



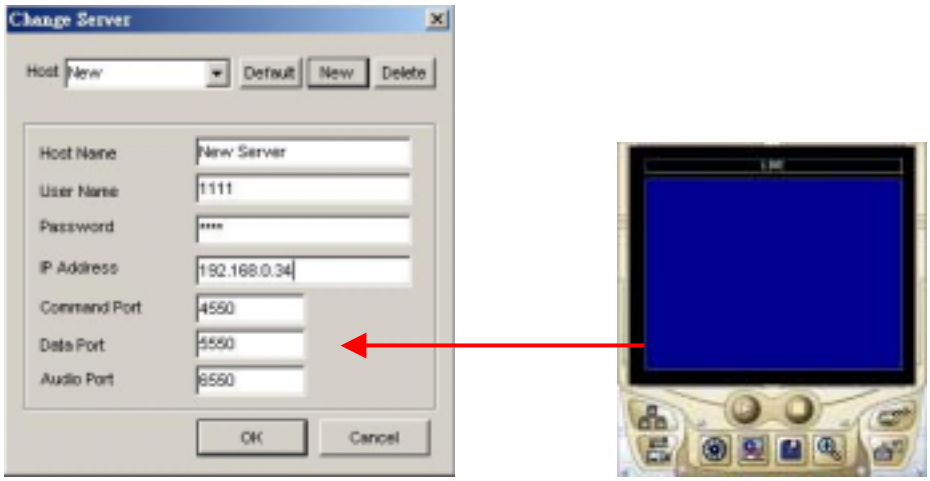
Function and Feature of Mpeg4 Encoder Viewer

Mpeg4 Encoder Viewer

	Click to connect to GV-System
	Click to stop the connection
	Click to enable speaker
	Click to enable microphone
	Click to login to a different GV-System
	Click to select camera
	Click to take a snapshot from the received video
	Click to adjust the video quality in 3 levels
	Click to save a video file
	Click to switch to full screen mode
	Click to bring out the I/O control panel
	Click to bring out the PTZ control panel

Change Server

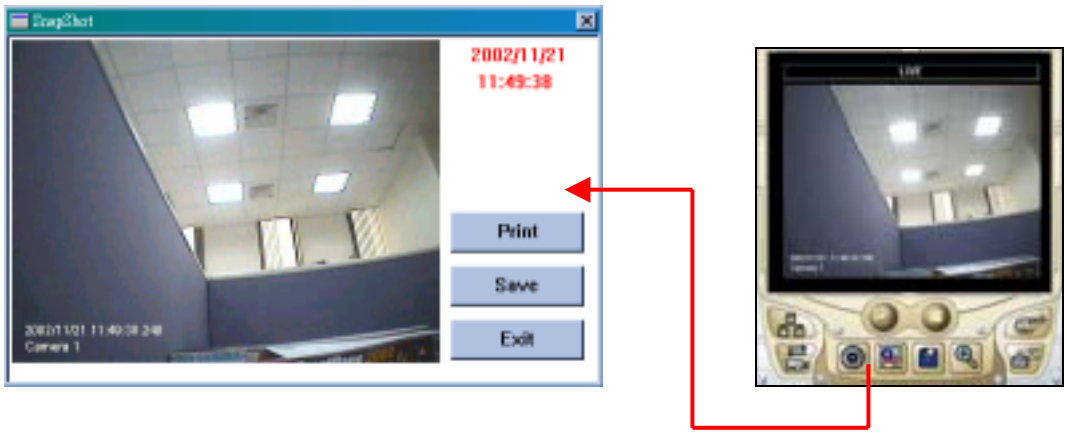
The Change Server function allows you to change connection to a different GV-System. Click on the [Change Server] button and the following dialog box will appear.



1. Click [New] button to create a new connection.
2. Enter a name for the new connection in the “Host” column.
3. Enter a valid user ID and passwords.
4. Enter the IP address of the GV-System you wish to connect to.
5. Specify port number in both Command Port and Data Port.
6. Click [OK] to establish connection to the server. This new connection will now be listed in the “Host” drop-down list.
7. To remove the connection simply selected from the “Host” drop-down list and click the [Delete] button.

Snapshot

Click on the [Snapshot] button and you will be able to capture an image from the video clip. Click [Print] button to print snapshot image to a printer or [Save] button to save the image as * bmp file.



File Save

Click on [File Save] button and you will be able to save video clip in * avi format.

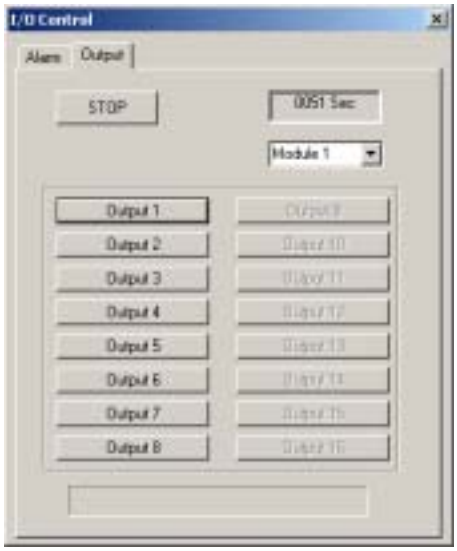
PTZ Control

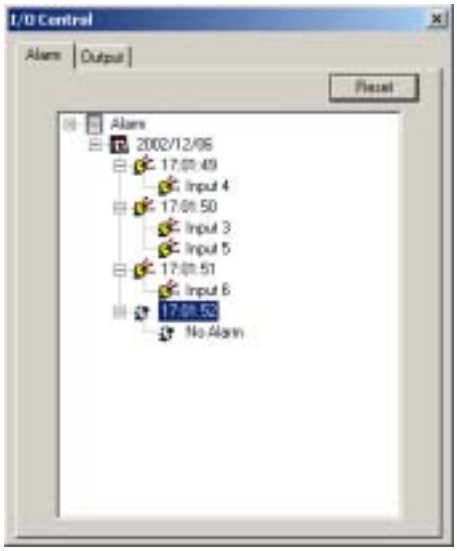
Click on the [PTZ Control] button and the following PTZ panel will appear. PTZ cameras only allow one user to control at a time. Therefore, if there are several users trying to control the same PTZ camera in the same time, the camera will give priority to the first login user and to the next in the orders received. Each user will be given 60 seconds to control the camera. After the time expired, the system will switch the control to the next user in queue. The counter on the upper right corner serves two meanings, for user who is controlling the camera it indicates the remaining time of your control. For user who is waiting online it indicates the total waiting time.

I/O Control

Click on the I/O control button to bring out the following I/O control panel. The I/O control panel allows you to send signal to the output device over the Internet.

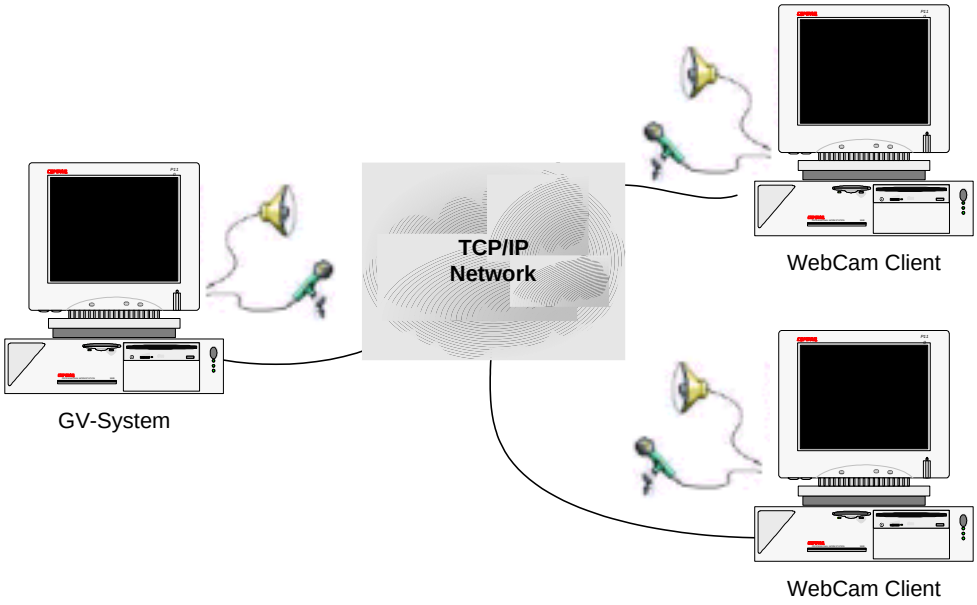
Click on [Start Control] button; use the drop-down list to select the module you wish to control. Then click on one of the [Output] button to send signal to the device.





Two Way Audio

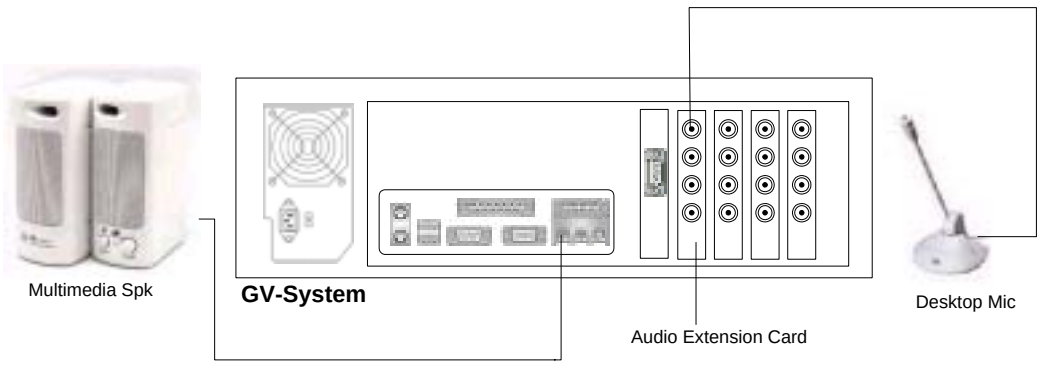
The MPEG4 Encoder Viewer provides two-way audio capabilities for the WebCam client. This feature delivers a full duplex audio communication with live video images between WebCam client and GV-System.



Setup GV-System's hardware for two-way audio

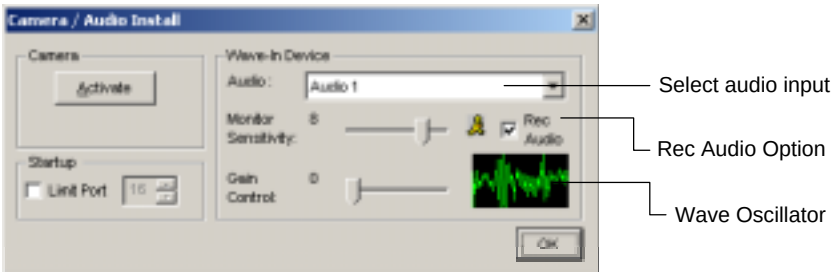
Before you can start using MPEG4 Encoder Viewer's two-way audio function you should first setup your GV-System so it is capable of running two-way audio.

1. You must have a GeoVision audio extension card properly installed in your GV-System.
2. Connect a desktop microphone to the input of the audio extension card. Make sure you have AC power supply to your desktop microphone.
3. Connect a multimedia speaker to the audio input of your sound card.



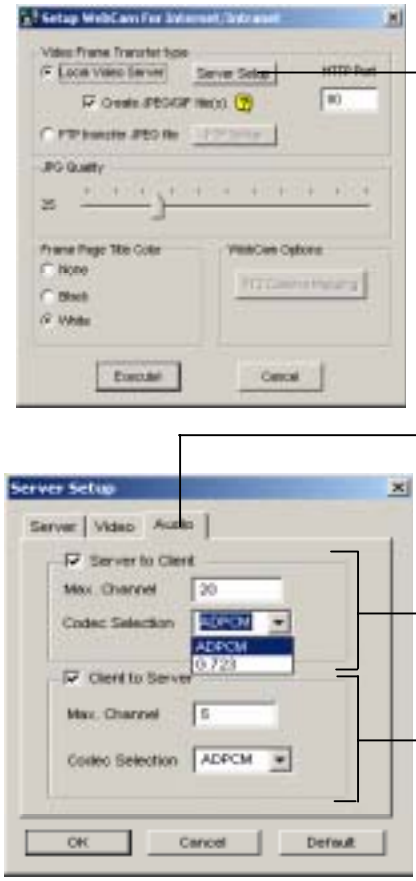
Setup audio device for two-way audio

In GV-System main screen, click on the [System Configure] button and select “Camera/Audio Install” from the menu. In the following dialog box, select the audio input where your desktop microphone is connected to in the drop down menu. Enable “Rec Audio” option, then speak gently to the microphone and see if the wave-in oscillator vibrates. Keep speaking into the microphone while monitoring the wave spectrum in the oscillator. Use the “Monitor Sensitivity” and “Gain Control” slider bar to adjust the audio quality. To achieve best possible audio quality, the wave spectrum should be extended as broadly as possible but not hitting or exceeding the upper and lower edge of the wave-in oscillator.



Setup WebCam Server for two-way audio

In GV-System main screen, click [Network] button and enable “WebCam Server” from the menu and the following dialog box will appear.



Step one: Select “Local Video Server” then click [Server Setup] button.

Step two: Click [Audio] tab in the “Server Setup” dialog box.

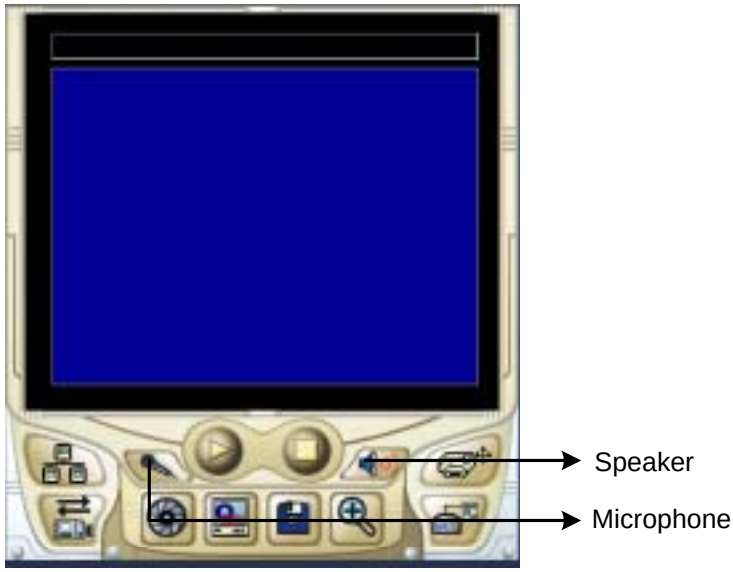
Step three: Enable “Server to Client” option. This enables your GV-System to transmit audio stream to WebCam client. In “Max. Channel” column, specifies the number of clients your GV-System is allow to send audio to. Select the transmission audio codec in “Codec Selection”.

Step four: Enable “Client to Server” option. This will allow your GV-System to receive audio stream from the WebCam client. In “Max. Channel” column, specifies the number of clients allowed to speak to your GV-System. In “Codec Selection”, choose the receiving audio codec.

Note: ADPCM requires 4KBps (4,000Bps) bandwidth while G.723.1 only requires 600Bps bandwidth.

Setup WebCam client for two-way audio

1. Find a multimedia PC with Internet access and Microsoft Internet Explorer 6 web browser.
2. Make sure the desktop microphone and the multimedia speakers are properly connected to the sound card of your PC.
3. Log onto the Internet and key-in the IP address or domain name of the GV-System.
4. The MPEG4 Encoder Viewer will appear if logged on successfully. Input a valid user ID and passwords, and then click [OK] button.
5. Click on both the Microphone and the Speaker icons to enable the two-way audio feature.

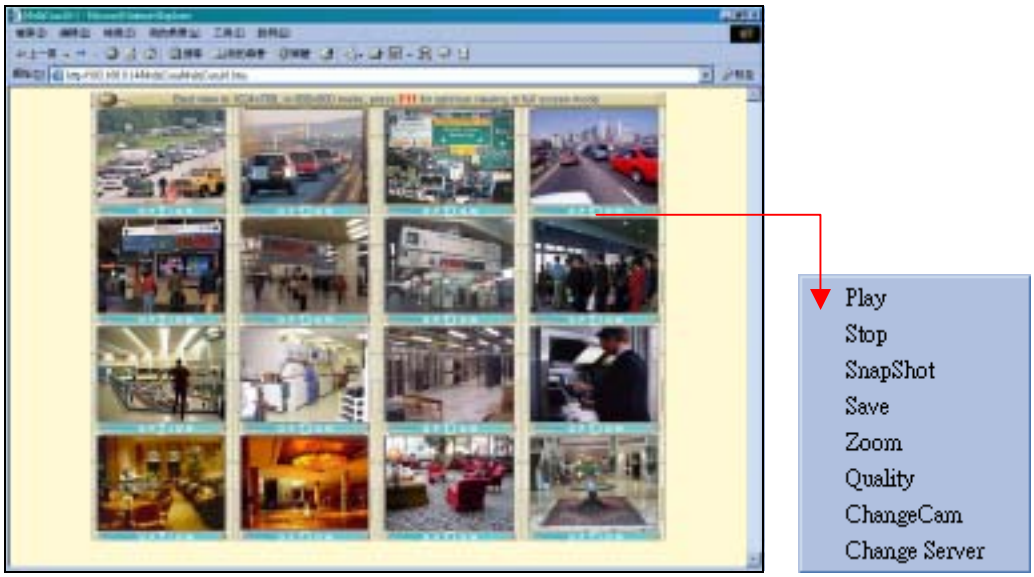


You should be able to perform two-way audio communication with a remote GV-System when all hardware and software are setup properly.

Multi Window Selection

If you are using a broad band Internet connection such as DSL or Cable Modem then you have the options to display 1, 2, 4, 8, or 16 camera windows under one web page. If the connected GV-System has 16 cameras then you can distribute them to each one of the Mpeg4 Encoder Viewer's camera windows. Or, you can have each window connecting to a different GV-System. This way you can connect up to 16 different GV-System under one web page.

4 Windows Display



16 Windows Display

Note:

Click on Option bar to bring up the user control menu.

7.2.2 JPEG Image Viewer

The JPEG image viewer is the second view option in WebCam system. It is capable of running on Mac OS browsers as well as Window browsers. Unlike the Mpeg4 Encoder Viewer, which receives live video streams, this one receives coninues Jpeg images from the GV-System. The JPEG Image Viewer is a ideal tool for users with low bandwidth and allow you to view only one camera at a time.

Start and Stop JPEG Image Viewer

1. Run Internet Browser from your PC.
2. Key in GV-System's IP address in the browser's address box then press [Enter].
3. Select "JPEG Image Viewer" and then click [Submit].

4. Input a valid user's ID and password then click [Submit]

5. If login successfully you will be able to view live video images using JPEG Image Viewer.

Function and Feature of JPEG Image Viewer

JPEG Viewer Control Buttons

	Select zoom-in, zoom-out, or fit into JPEG view window.
	Click to scroll up, down, left, and right of the image.
	Click to take a snap shot from the video.
	Click to select view camera.

7.2.3 Remote Play Back System for WebCam

The third option in the WebCam System is the Remote PlayBack viewer. Its functions are very similar to the Remote Playback System describe in Chapter 5. Which is allowing you to playback GV-System's recorded video from a remote area. One GV-System is capable of allowing 50 WebCam RPB client to login at the same time.

RPB Control Buttons

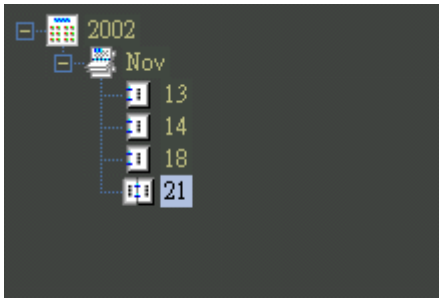
	Click to take a snap shot from the playback video.
	Click to load recorded files from the GV-System.
	Click to stop video playback.
	Click to play video files.
	Click to pause video playback.
	Click to switch to full screen mode.

	Click to download playback video to a specified folder.

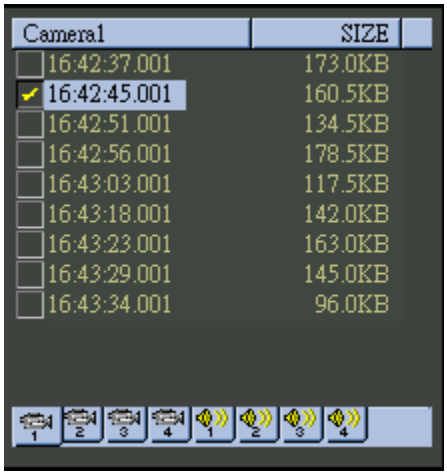
Search and Playback Recorded Files

The WebCam RPB system allows you to playback both video files and audio files. Audio file are only available when your system is equipped with the optional audio recording function.

1. Click [Load] button to retrieve data from the GV-System.
2. Select the date in the folder tree.



3. All recorded video files within the selected date will be listed in the Event List window.



4. Use the camera select or audio select buttons to select input channels whose recorded files you want to locate.
5. Click and highlight the file you wish to view or listen to then press the [Play] button.

7.2.4 Server Information

The Server Info provides information and status of the login GV-System. These information will be refresh every 5 minutes giving you up to minute status information.

Server Information

Last Update Time	The last data refresh time.
Server Update Time	Display the last server refresh time.
Recycle Log	Display the time of last data deletion.
Camera On	Display which cameras are activated.
Camera Off	Display which cameras are de-activated.
Camera Signal Lost	Display which cameras are experiencing signal lost.

WebCam Information

WebCam Update Time	Display the last login time.
WebCam Server Startup Time	Displays the startup time of the webcam server in the login GV-System.
Mpeg4 Current Channel(s)	Displays the current online users whom are using Mpeg4 Encoder Viewer.
RPB Current Channel(s)	Displays current channel of RPB.
Audio Current Channel(s)	Displays current channel of audio.
WebCam Version	Displays the version of your webcam software.

Connect Info	
User IP Addresses with login files	Displays the IP address, login date, login time of WebCam users.

Last 100 I/O Events	
Event XXX	Displays the last 100 I/O activations.

7.2.5 G-View Application

The G-View is a remote monitoring application for Pocket PC device. It can run on any PDA using Windows CE operating system. With G-View, you will be able to monitor your GV-Systems while on the move. This section will explain the setup and function of the G-View application in detail.

G-View Application Setup

The G-View application is included in your GV-System CD-ROM. This application should be installed in a PDA device with Windows CE OS.

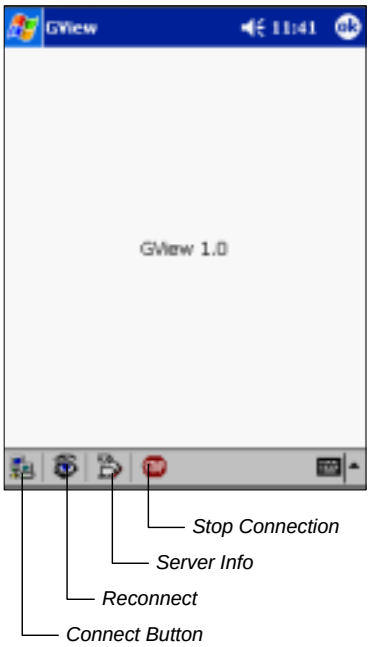
1. Plug your PDA via USB or Com port to a PC installed with Microsoft ActiveSync.
2. Run Microsoft ActiveSync in the connected PC and make sure both the PDA and PC are synchronized.
3. Insert GV-System CD into the CD-ROM drive of the PC and run Setup.exe in the CD-ROM root directory.
4. In the setup dialog box select “PDA Viewer for WinCE” and click [Next].

5. Click [Browse] if you wish to specify another destination directory otherwise click [Next] and follow the rest of the instruction to complete the installation.

Start and stop G-View application.

Once G-View is properly installed into your PDA device you will be able to use it to monitor your GV-Systems.

1. Click the [G-View] icon in your PDA to start G-View application.



2. Click the [Connect] button located at the lower left corner of the screen and the following screen will appear.

3. Input the IP address of the GV-System you wish to connect to in the “IP Address” column; enter a valid user’s ID and password then click [OK].
4. If login successfully, you will be able to see the video coming to your PDA.
5. Click [Stop] button if you wish to terminate the connection.

Function and Features of G-View Application

The major function of G-View includes live video monitoring, PTZ camera control, Camera zooming control, and snapshot.

PTZ Screen

Snapshot Screen

G-View Application

	Click this button to take a snapshot from the video clip.
	Use this drop-down list to switch cameras.
	Use these buttons for focus-in and focus-out control
	Use [+] and [-] button for zoom-in and zoom-out control.
	Use these buttons to control left, up, down, and right of the PTZ camera.

Server Info

Server Info

Server Update Time	Display the last server refresh time.
Recycle Log	Display the time of last data deletion.
Camera On	Display which cameras are activated.
Camera Off	Display which cameras are de-activated.
Camera Signal Lost	Display which cameras are experiencing signal lost.

Web Info

WebCam Update Time	Display the last login time.
WebCam Startup Time	Displays the startup time of GV-System's Web Server.
Mpeg4 Current User	Displays the number of online users whom are using Mpeg4 Encoder Viewer.
RPB Current Channel	Displays the number of online users whom are using RPB View.
Audio Current Channel	Displays the number of online users who are using Audio View.
WebCam Version	Displays the version of your webcam software.

I/O Events	
	Displays the time and date of the invoke I/O device.

7.2.6 Remote View Using i-mode

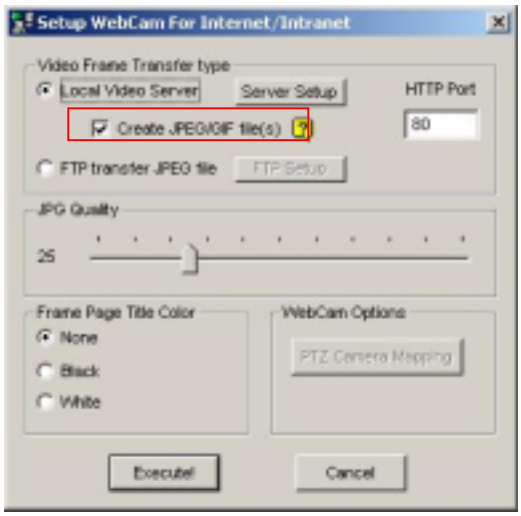
I-Mode is a mobile Internet service that was first introduced by NTT Docomo of Japan. Currently i-mode services are only available in Japan and Taiwan. But since i-mode is one of the most successful mobile Internet solutions and NTT is aggressively introducing I-mode solution to other countries, therefore, it is possible that it will be available in other countries in the future.

GV-System's i-mode concept

When using i-mode services, you do not pay for the time you are connected to a website or service, but are charged only according to the volume of data transmitted or received. Therefore, GV-System does not send live videos, instead, it will only send one images at a time and will not send another unless it is requested to do so. To request another image simply press the [Enter] key of your I-mode phone and you will be able to receive another image from the system. The images are in GIF format with size of 96x72.

Enable GV-System's i-mode function

From your GV-System's main screen click [Network] > [WebCam Server] and enable "Support i-mode client". Your GV-System must be using a global IP address and should be accessible from the Internet.



Connect to GV-System using i-mode

After enable the i-mode function you can now receive live images from the GV-System via an i-mode mobile phone. The interface and operation of your I-mode phone maybe different from the following example since the interfaces may vary from models to models.

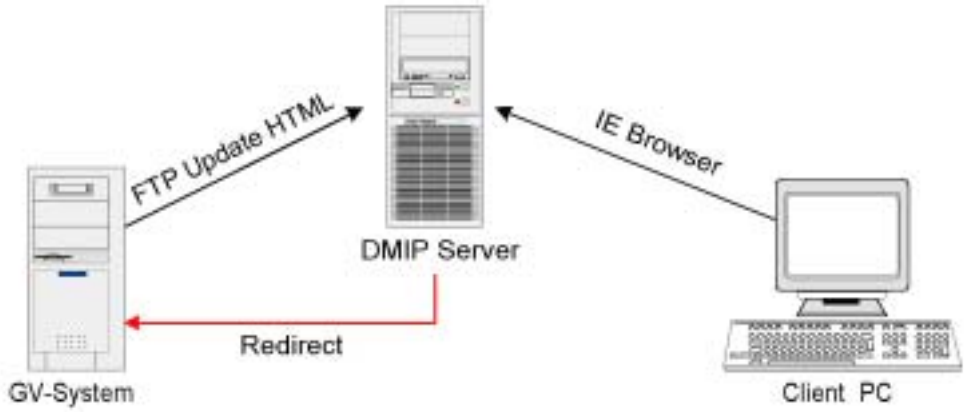
1. Enter to the I-mode service page of your I-mode phone.
2. Select “Input web address” and enter the IP address of your GV-System in the Address column then press [OK].

3. Input an valid user’s name and password then press [Submit]

4. Select the camera you wish to view then press [Enter].
5. If login successfully you I-mode phone will be able to receive live images from the GV-System

7.3 DMIP System

If your GV-System is using a dynamic IP address then it is nearly impossible for WebCam users to locate your GV-System once its IP address changes. DMIP is exclusive developed application for solving such problem. DMIP utilizes standard File Transfer Protocol (FTP) to upload files or data to a designated file server. This allows IP address of the GV System to be transferred to the file server periodically. You can now logon to the file server instead of GV System, file server will further redirect WebCam viewer to the GV-System.



DMIP System Concept:

There are 3 major components required in the DMIP concept, which are DMIP-Server, GV-System, and client PC with web browser.

DMIP Server: Act as the FTP server and web server. This server must have a static IP address. You can setup your own DMIP Server or you can use the one already setup by us.

GV-System: The GV-System should be installed with DMIP application. The GV System does not require to having static IP address and should be connected to the network by TCP/IP connection.

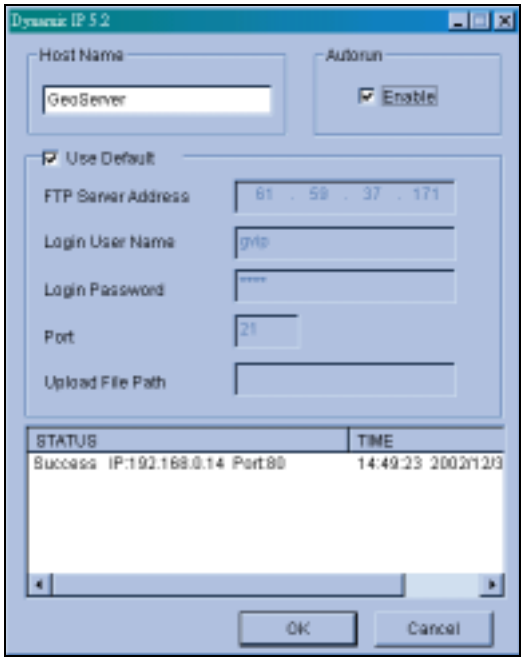
The client PC: Should have Internet access with either Microsoft Internet Explorer or Netscape Navigator installed.

DMIP Setup:

1. Install DMIP application in GV-System. Insert GV-System CD into the CD ROM drive of your GV-System and run Setup.exe in the CD root directory.

2. In the setup dialog box select “Register Dynamic IP” and click [Next] then follow the rest of the instruction to complete the installation.

3. Run DMIP application in GV-System. Please go to [Start] > [Program] > [DMIP] > [Register Dynamic IP] and the DMIP setup window will appear.



A: Input the host name of your GV-System. (The host name will be used for identifying your GV-System in the DMIP server.)

B: Click “Use Default”. This will set the upload IP address to a public DMIP Server. You’ll notice that the FTP Login parameters are closed and you will not be able to make any changes or modifications.

C: Click OK and the status window should display the date, time, and the connection status.

4. If the connection between GV-Server and Geo-Server is establish successfully, you’ll be able to see a DMIP icon located in the lower left corner of the Window status bar.

Setup DMIP server

However, if you would like to build up your own DMIP server, please refer to the following instructions to set it up:

1. Execute the IIS server 5.0 embedded in the Windows 2000 Server.
2. Build up a FTP server and allow the “Write” function.
3. Build up a Webserver and specify the path to the one which the FTP server specified. Remember, the access with “Write” is not allowed to be activated.

Note:

If necessary, you may also write a homepage for your own DMIP server.

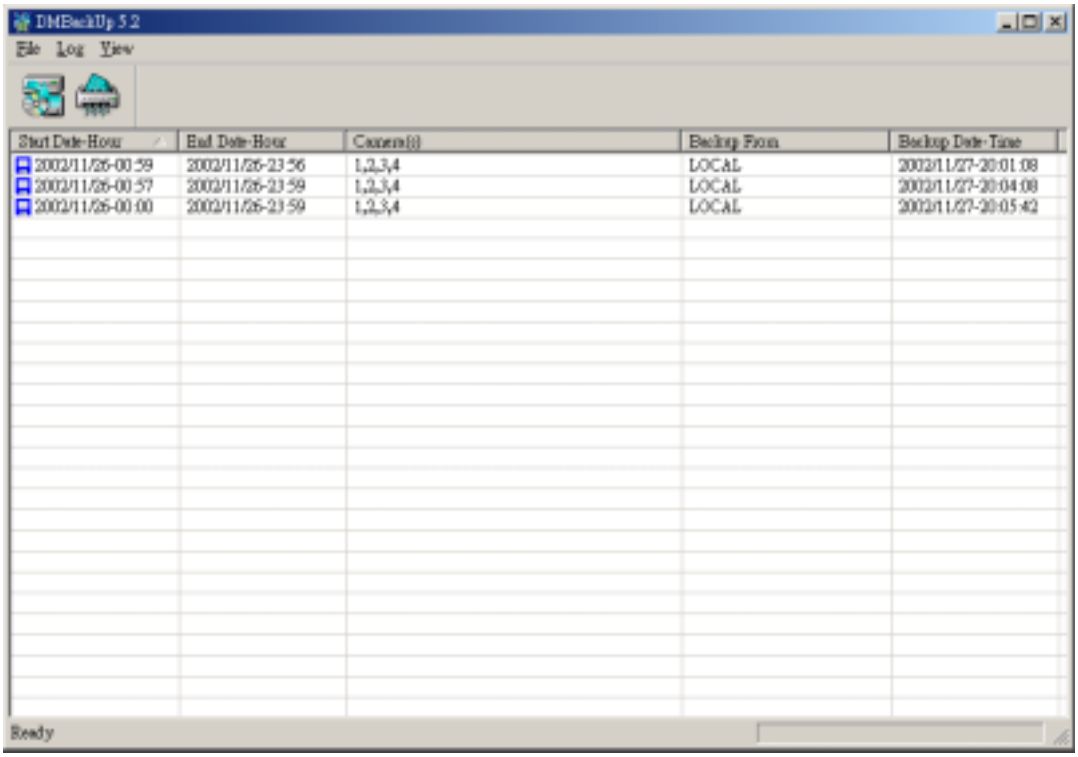
Chapter 8

Back Up System and Repair Database Utility

8.1 Backup System

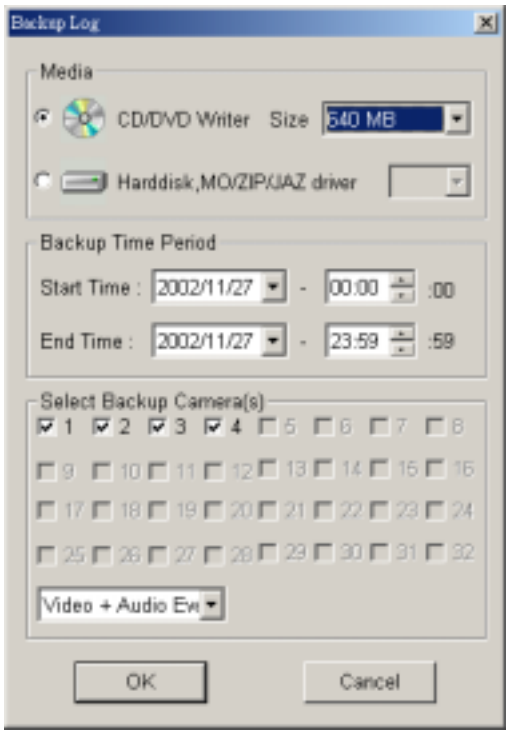
Our backup system will do the following tasks:

1. Recorded audio/video files can be saved to CD-R, DVD, MO or ZIP media.
2. Delete audio/video files from the database.



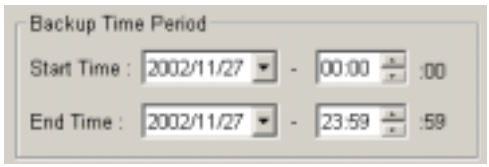
8.2 Backup Audio/Video Files

1. Press or select from the drop-down menu [log] > [backup], you will see the following dialog box:



2. Select the Media you want to backup to, either a CD-Writer, a hard disk drive, or a MO/ZIP/JAZ drive.

3. Enter the desired starting time in [Start Time] and the desired ending time in [End Time] of the audio/video files you want to backup.

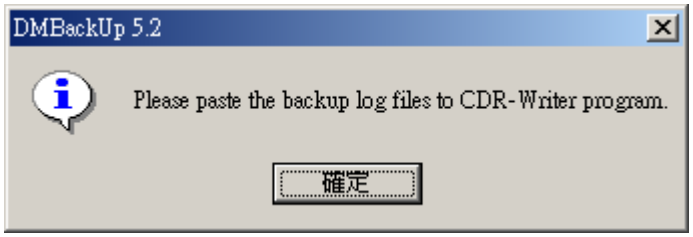


Note *Each backup unit is 1 minutes.*

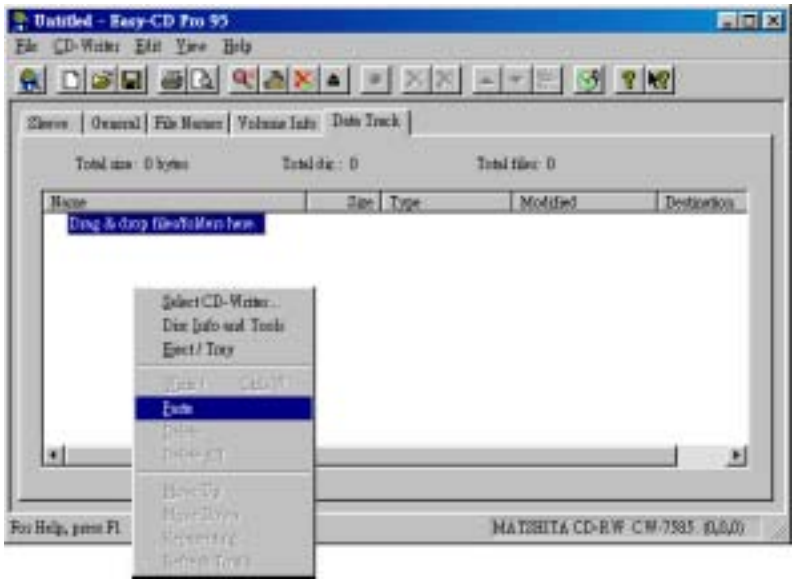
4. Press [OK], and you will see the following dialog box:

The selected backup range is used
Selected Date : 1999/05/03 - 2002/05/03
The backup log data size is : 326.81MB
The backup media size is : 640.00MB
Are you sure to backup?
OK
Cancel

5. If you selected [CD / DVD Writer], you will see the following dialog box:

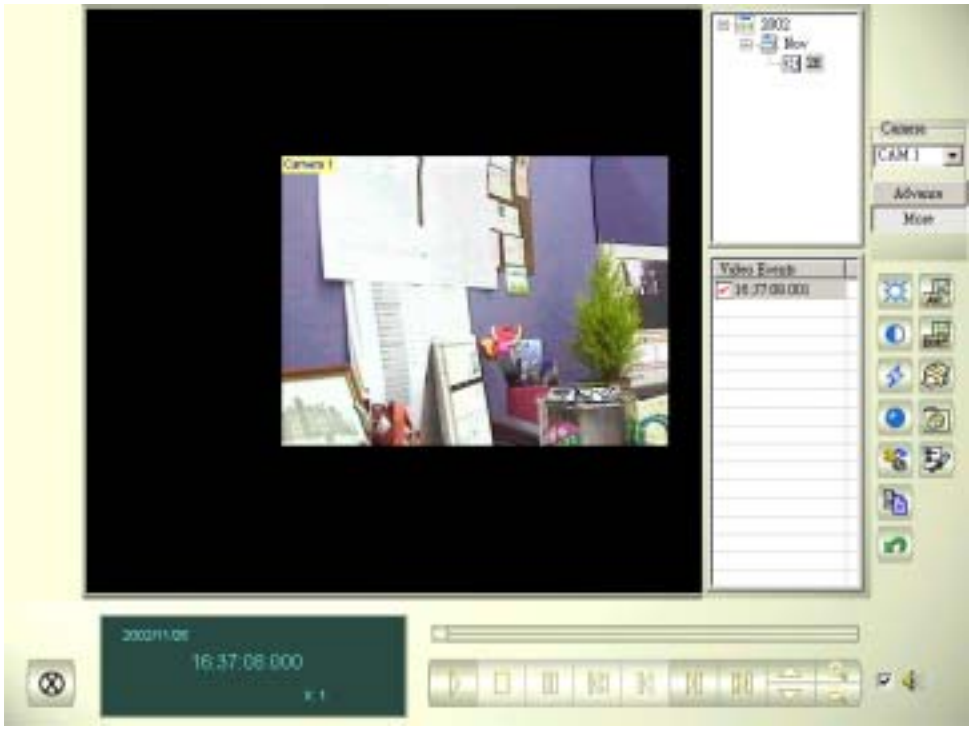


6. After clicking ok, you may run a CD-R application, such as EasyCD. Click on the right button of your mouse to paste files in the application.



7. If you selected Hard disk drive or MO/ZIP/JAZ driver, you will see the following dialogue box:

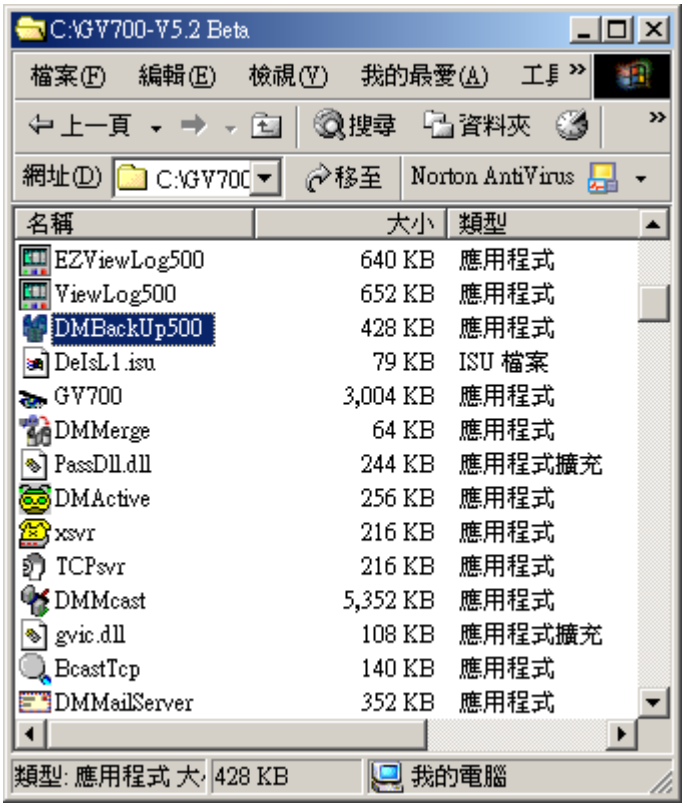
8. You need to run the “EZViewLog500.exe” located in the root directory of your backup media, in order to view the backup video files.



8.3 Remote Backup

Repeat the same procedures in (1) and (2) in the previous topic “Remote Playback”.

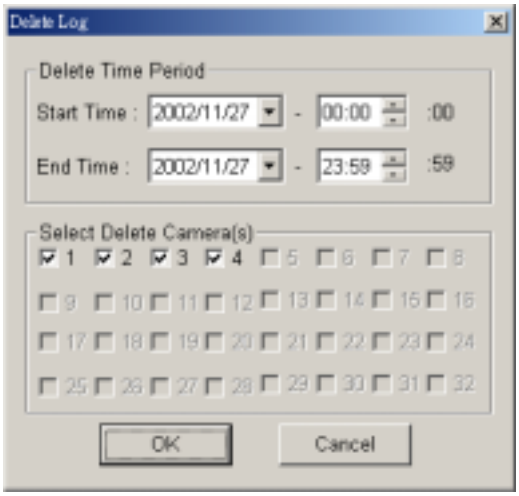
Remote users may run the “DMBackUp500.exe” through LAN in the following screen.



8.4 Delete Audio/Video Files

Step 1: In the [Delete Log], press or select from the drop-down menu [log] > [delete].

You will see the following dialog box

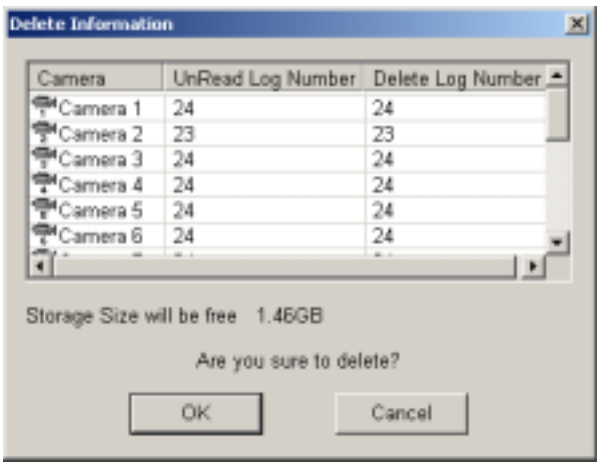


You may be required to enter a password if one has been set previously.

Step 2: Enter the desired starting time in [Start Time] and the desired ending time in [End Time] of the video files that you want to delete.

> ***Note*** *Each delete unit is 1 minutes.*

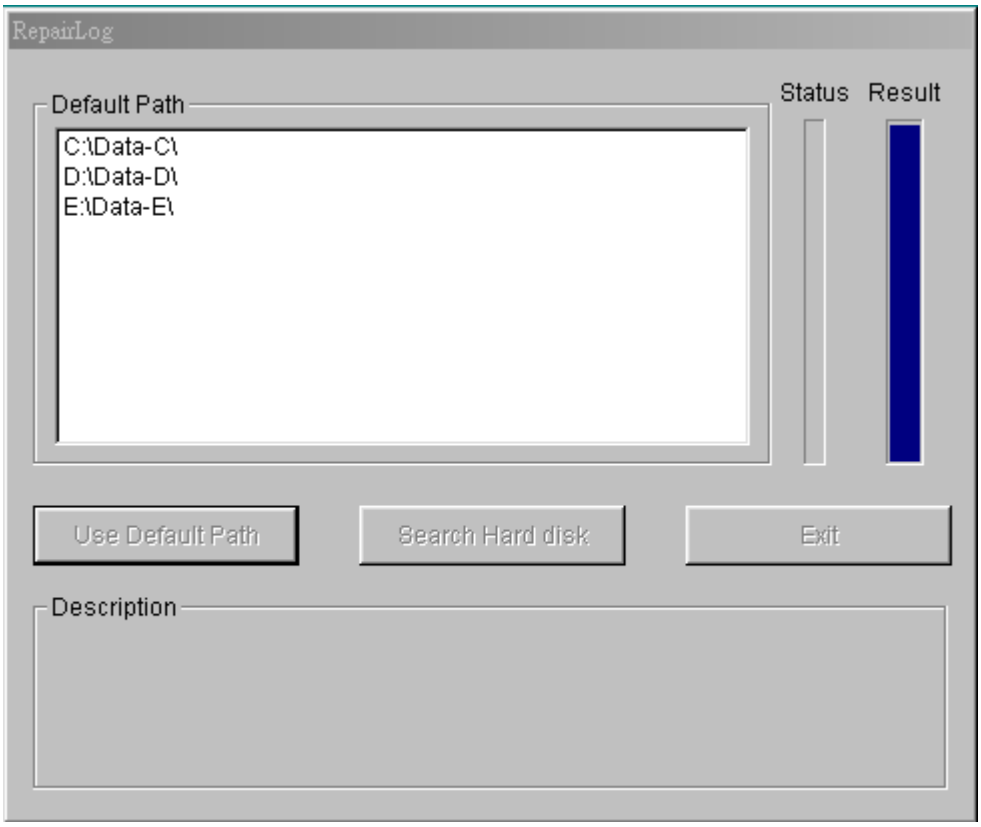
Step 3: **Press [OK] to delete.**



8.5 Repair Database Utility

When you playback the video clips and find one of the following situations, please run the [Repair Database Utility].

1. You see question marks in video column.
2. You do not see video display even when you press the playback button.
3. Garbage text is displayed.



[Default Path]

The [Repair Database Utility] will search and rebuild the database using the path you have defined in the GV-Series system.

[Search Hard disk]

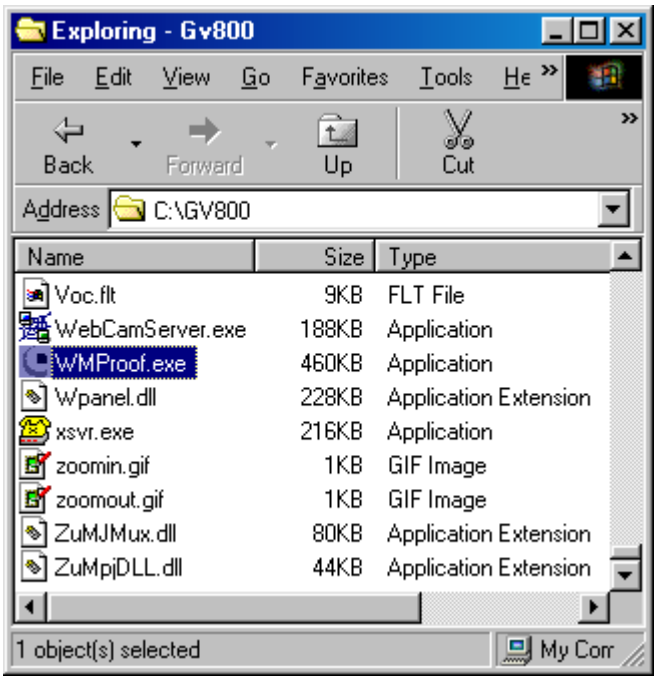
The [Repair Database Utility] will search all the hard disks you have installed in the PC, including the subdirectories to rebuild the database.

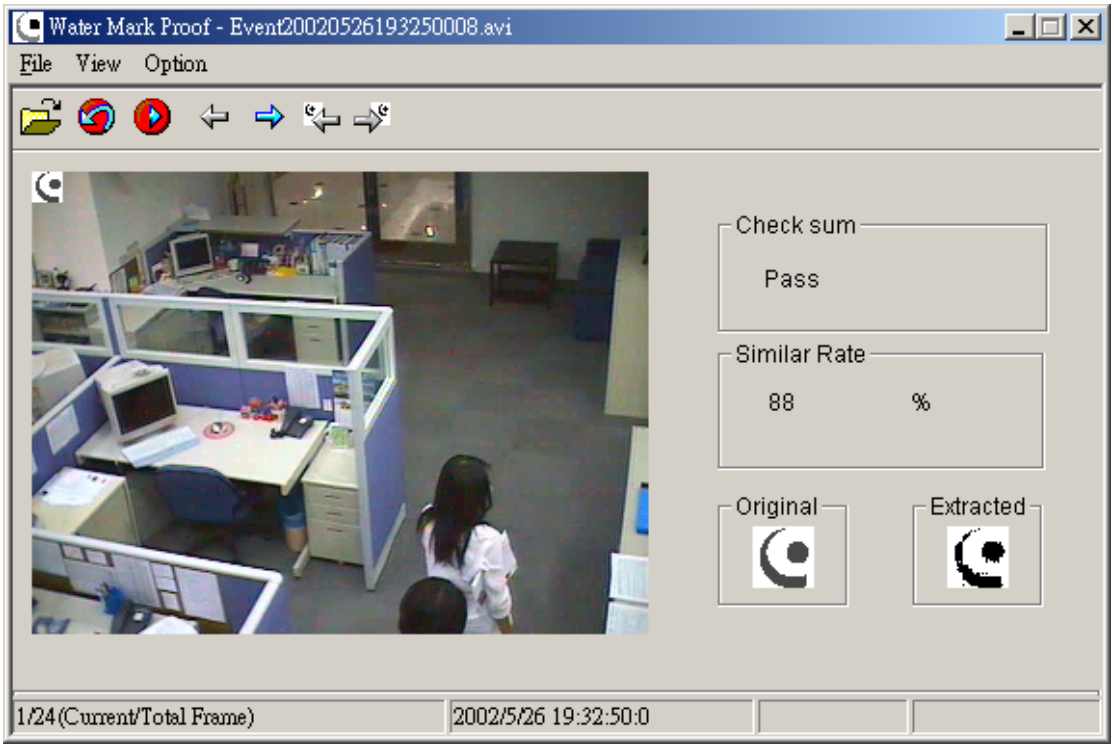
Chapter 9

Watermark Proof

9.1 Watermark Proof Function

This program can help you check whether or not your picture was originally captured from the GV-System. (Before your record video files have to used digital watermark protection)





Open File

First Frame

Play

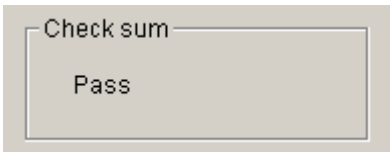
Previous Frame

Next Frame

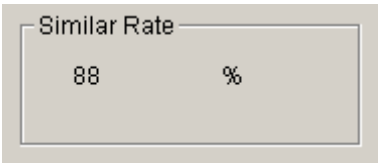
Previous Have Watermark Frame

Next Have Watermark Frame

[Check Sum]
The wmproof will check to extracted picture. If picture is ok, the check sum will show Pass, when picture is damaged, the check sum will show No pass.



[Similar Rate]
The wmproof will check to extracted of similar with original then show percent.



[Original]
This is original watermark.

[Extracted]
This is extracted watermark. (You record video files before, first you must enable “Use Digital Watermark Protection”, then GV-Series system will add watermark into record video files at 30 frames).